

10/580,425

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1020	(556/136).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2007/12/13 16:52
L2	727	(556/137).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2007/12/13 17:24
L3	596	(556/28).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2007/12/13 17:29
L4	101	(548/104).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2007/12/13 17:31
L5	260	(546/5).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2007/12/13 17:35
L6	976	(514/492).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2007/12/13 17:35

10/580,425

(FILE 'HOME' ENTERED AT 17:47:33 ON 13 DEC 2007)

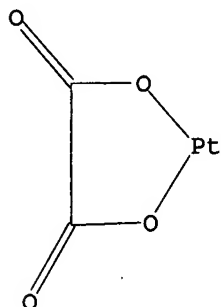
FILE 'REGISTRY' ENTERED AT 17:47:58 ON 13 DEC 2007

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 17:48:20 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 22 TO ITERATE

100.0% PROCESSED 22 ITERATIONS

21 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 159 TO 721

PROJECTED ANSWERS: 146 TO 694

L2 21 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 17:48:24 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 604 TO ITERATE

100.0% PROCESSED 604 ITERATIONS

549 ANSWERS

SEARCH TIME: 00.00.01

L3 549 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.10

172.31

FILE 'CAPLUS' ENTERED AT 17:48:30 ON 13 DEC 2007

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FILE LAST UPDATED: 12 Dec 2007 (20071212/ED)

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=> s l3/prep
      2357 L3
      4501717 PREP/RL
L4      255 L3/PREP
          (L3 (L) PREP/RL)

=> s l4 and py<=2003
      23975070 PY<=2003
L5      213 L4 AND PY<=2003

=> s l5 and neutral bidentate
      315929 NEUTRAL
      24726 BIDENTATE
      387 NEUTRAL BIDENTATE
          (NEUTRAL(W)BIDENTATE)
L6      0 L5 AND NEUTRAL BIDENTATE

=> s l5 and neutral bidentate ligand
      315929 NEUTRAL
      24726 BIDENTATE
      333581 LIGAND
      111 NEUTRAL BIDENTATE LIGAND
          (NEUTRAL(W)BIDENTATE(W)LIGAND)
L7      0 L5 AND NEUTRAL BIDENTATE LIGAND

=> s l5 and "bis-dicarboxylate"
      505087 "BIS"
      13910 "DICARBOXYLATE"
      3 "BIS-DICARBOXYLATE"
          ("BIS"(W)"DICARBOXYLATE")
L8      0 L5 AND "BIS-DICARBOXYLATE"

=> s l5 and "bis-dicarboxylateplatinum(II) "
      505087 "BIS"
      0 "DICARBOXYLATEPLATINUM"
      2192912 "II"
      0 "BIS-DICARBOXYLATEPLATINUM(II) "
          ("BIS"(W)"DICARBOXYLATEPLATINUM"(W)"II")
L9      0 L5 AND "BIS-DICARBOXYLATEPLATINUM(II) "

=> s l5 and "bis-dicarboxylateplatinate(II) "
      505087 "BIS"
      0 "DICARBOXYLATEPLATINATE"
      2192912 "II"
      0 "BIS-DICARBOXYLATEPLATINATE(II) "
          ("BIS"(W)"DICARBOXYLATEPLATINATE"(W)"II")
L10     0 L5 AND "BIS-DICARBOXYLATEPLATINATE(II) "

=> s l5 and "platinum(II) "
      228025 "PLATINUM"
```

2192912 "II"  
10724 "PLATINUM(II)"  
("PLATINUM"(W)"II")

L11 97 L5 AND "PLATINUM(II)"

=> d 1-97 bib abs

L11 ANSWER 1 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2003:1006993 CAPLUS  
DN 140:52202  
TI Tumor-inhibiting platinum(II) oxalate complexes  
IN Keppler, Bernhard  
PA Faustus Forschungs Cie. Translational Cancer Research G.m.b.H., Germany  
SO PCT Int. Appl., 73 pp.  
CODEN: PIXXD2  
DT Patent  
LA German  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003106469	A1	20031224	WO 2003-EP6323	20030616 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10226592	A1	20040108	DE 2002-10226592	20020614
	DE 10226592	B4	20040729		
	CA 2489461	A1	20031224	CA 2003-2489461	20030616 <--
	AU 2003237946	A1	20031231	AU 2003-237946	20030616 <--
	EP 1517911	A1	20050330	EP 2003-735630	20030616
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2005529958	T	20051006	JP 2004-513300	20030616
	US 2005143455	A1	20050630	US 2004-11433	20041214
	US 7057059	B2	20060606		
PRAI	DE 2002-10226592	A	20020614		
	WO 2003-EP6323	W	20030616		
OS	MARPAT 140:52202				

AB The invention relates to tumor-inhibiting PtL(C2O4) (L = substituted trans-1,2-cyclohexanediamines) and their use as therapeutic agents, in particular as a tumor-inhibiting medicament. The substituted trans-1,2-cyclohexanediamines were prepared and reacted with K2PtCl4 to give PtLCl2 which were reacted with oxalic acid or its Na salt to give PtL(C2O4). For example, 2-bromo-4-methylcyclohexanone, prepared by bromination of 4-methylcyclohexanone, was converted to 4-methylcyclohexane-1,2-dioxime which was reduced to 4-methyl-trans-1,2-cyclohexanediamine disulfate. The disulfate was reacted with K2Pt4 to give PtL1Cl2 (L = 4-methyl-trans-1,2-cyclohexanediamine) which was subsequently reacted with H2C2O4 to give PtL1(C2O4). PtL(C2O4) complexes were tested as antitumor agents against lung cancers.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2003:589248 CAPLUS  
DN 139:330578  
TI Bis(2-aminopyridine)(2,2'-bipyridine)platinum(II)  
bis(oxalato)platinate(II) dihydrate

AU Sakai, Ken; Akiyama, Norinobu; Mizota, Mina  
 CS Faculty of Science, Department of Applied Chemistry, Tokyo University of  
 Science, Shinjuku-ku, Tokyo, 162-8601, Japan  
 SO Acta Crystallographica, Section E: Structure Reports Online (2003  
 ), E59(8), m636-m638  
 CODEN: ACSEBH; ISSN: 1600-5368  
 PB International Union of Crystallography  
 DT Journal; (online computer file)  
 LA English  
 AB Crystals of the title compound are triclinic, space group P.hivin.1, with a  
 7.4507(8), b 12.3998(13), c 15.5348(17) Å, α 93.227(2), β  
 98.602(2). γ 101.703(2)°; Z = 2, dc = 2.272; R = 0.041,  
 Rw(F2) = 0.072 for 5485 reflections. Cations and anions stack alternately  
 along the a axis, giving a 1-dimensional chain of the Magnus's green salt  
 type. Intrachain π-π-stacking interactions are achieved between the  
 oxalate and the 2,2'-bipyridine moieties, where the plane-to-plane sepsns.  
 are 3.41(7) and 3.46(1) Å. Two different Pt...Pt  
 distances [3.9294(6) and 5.0302(7) Å] alternate along the chain.  
 RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2003:575573 CAPLUS  
 DN 139:236038  
 TI Kinetics and mechanism of the reactions of platinum(II  
 )-dipicolinate and platinum(II)-glycylglycine with  
 oxalate ion  
 AU Dey, Sukalpa; Banerjee, Pradyot  
 CS Department of Inorganic Chemistry, Indian Association for the Cultivation  
 of Science, Kolkata, 700 032, India  
 SO International Journal of Chemical Kinetics (2003), 35(8),  
 327-333  
 CODEN: IJCKBO; ISSN: 0538-8066  
 PB John Wiley & Sons, Inc.  
 DT Journal  
 LA English  
 AB The kinetics of the reactions of [Pt(dipic)(H2O)] and [Pt(digly)(H2O)]  
 (where H2dipic = pyridine-2,6-dicarboxylic acid and H2digly =  
 glycylglycine) with oxalate ion were studied at 25°C in aqueous medium  
 by UV-vis spectroscopy at I = 0.1 mol dm<sup>-3</sup> over an wide range of pH. A  
 probable associative pathway may involve a five-coordinate intermediate  
 leading to the formation of an unidentate oxalate species, which converts  
 to bidentate chelate in subsequent fast steps. The products are isolated  
 and characterized by CHN anal., IR, and 1H NMR spectra. The kinetic data  
 from pH variation expts. are fitted by a computer program to a sequence of  
 reactions and the different rate consts. are evaluated.  
 RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2003:445270 CAPLUS  
 DN 139:357356  
 TI Chiral palladium(II) and platinum(II) complexes of  
 diaminocyclohexane: X-ray structures of (1R,2R)-(-)-1,2-diaminocyclohexane  
 dihydrochloride and its corresponding oxalato platinum(  
 II) complex  
 AU Abu-Surrah, Adnan S.; Al-Allaf, Talal A. K.; Klinga, Martti; Ahlgren,  
 Markku  
 CS Department of Chemistry, Hashemite University, Zarqa, 13115, Jordan  
 SO Polyhedron (2003), 22(12), 1529-1534  
 CODEN: PLYHDE; ISSN: 0277-5387  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English

OS CASREACT 139:357356

AB The nucleophilic substitution reaction of the enantiomerically pure ligand, (1R,2R)-(-)-1,2-diaminocyclohexane [DACH] (1) with cis-bis(benzonitrile)palladium(II) dichloride [(PhCN)<sub>2</sub>PdCl<sub>2</sub>] gives [(DACH)PdCl<sub>2</sub>] (2) in a high yield. The reaction of the corresponding platinum(II) complex [(PhCN)<sub>2</sub>PtCl<sub>2</sub>] with DACH, under the same reaction conditions, surprisingly, took a different course, in which nucleophilic addition to the benzonitrile ligand occurred forming an enantiomerically pure amidine complex [(PhC:NH-NH(C<sub>6</sub>H<sub>10</sub>))Pt(N.tplbond.CPh)Cl]Cl (3), where the nitrogen ligand form a seven-membered chelate around the central atom. The aqua and oxalato derivs. of complex 2, [(DACH)Pd(H<sub>2</sub>O)<sub>2</sub>](NO<sub>3</sub>)<sub>2</sub> (4) and [(DACH)Pd(C<sub>2</sub>O<sub>4</sub>)] (5) also were prepared and characterized. The platinum analog complex to 5, [(DACH)Pt(C<sub>2</sub>O<sub>4</sub>)] (6), was prepared starting from the enantiomerically pure isomer (1) and the platinum salt K<sub>2</sub>PtX<sub>4</sub> (X = Cl, I). According to x-ray structural anal. carried out on the complex, the product does not consist of just the desired isomer, but a mixture of both the trans-1 (trans-(-)-1R,2R) and trans-d (trans-(+)-1S,2S) isomers. No retention of optical isomerism was observed. The single crystal structural anal. was also carried out on the ligand (1R,2R)-(-)-diaminocyclohexane dihydrochloride (DACH·2HCl) (1a). The result indicates, however, that only the R,R-isomer exists in the free ligand.

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:166633 CAPLUS

DN 139:94944

TI Preparation, characterization, and antitumor activity of new cisplatin analogues with 1-methyl-4-(methylamino)piperidine: Crystal structure of [PtII(1-methyl-4-(methylamino) piperidine)(oxalate)]

AU Mukhopadhyay, Uday; Thurston, John; Whitmire, Kenton H.; Siddik, Zahid H.; Khokhar, Abdul R.

CS Department of Experimental Therapeutics, The University of Texas M. D. Anderson Cancer Center, Houston, TX, 77030, USA

SO Journal of Inorganic Biochemistry (2003), 94(1-2), 179-185  
CODEN: JIBIDJ; ISSN: 0162-0134

PB Elsevier Science Inc.

DT Journal

LA English

AB A series of new platinum(II) complexes of the type [PtII(mmap)X] (where mmap, 1-methyl-4-(methylamino)piperidine and X, 1,1-cyclobutanedicarboxylato (CBDCA), oxalato, malonato, methylmalonato, dimethylmalonato, ethylmalonato, diethylmalonato or 2,3-naphthalene dicarboxylato (NDCA)) have been synthesized and characterized by elemental anal., IR, and <sup>13</sup>C and <sup>195</sup>Pt NMR spectroscopy. The crystal structure of the analog [PtII(mmap)(oxalate)] was determined using the single crystal x-ray diffraction method. Based upon a total of 4964 collected reflections, we determined that the compound crystallizes in the monoclinic space group P2<sub>1</sub>/c (with a=11.890(2) Å, b=9.6695(19) Å, c=9.875(2) Å, β=102.03(3)°, Z=4, and R=0.0428). In this complex, platinum has a slightly distorted square planar geometry with the two adjacent corners being occupied by two nitrogen atoms of the mmap ligand, whereas the remaining cis positions are occupied by two oxygen atoms of the oxalate mol. The mmap ligand is in a boat conformation and forms six-membered chelating rings as well as the oxalate mol. forms five-membered chelating rings with platinum. The complexes were evaluated for their cytotoxic potential against the sensitive A2780 tumor model and cisplatin-resistant clone derived in vitro from potential cells.

RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:958023 CAPLUS

DN 138:280324  
TI Synthesis and characterization of platinum(II) and  
(IV) complexes containing hexamethyleneimine ligand: crystal structure of  
[PtII(hexamethyleneimine)2(cyclobutanedicarboxylato)]·H2O  
AU Ali, Mohammad S.; Thurston, John H.; Whitmire, Kenton H.; Khokhar, Abdul  
R.  
CS Department of Experimental Therapeutics, The University of Texas, M.D.  
Anderson Cancer Center, Houston, TX, 77030, USA  
SO Polyhedron (2002), 21(27-28), 2659-2665  
CODEN: PLYHDE; ISSN: 0277-5387  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
OS CASREACT 138:280324  
AB New Pt(II) and Pt(IV) complexes [PtII(HMI)2X] (HMI = hexamethyleneimine, X  
= dichloro, sulfato, 1,1-cyclobutanedicarboxylato [CBDCA], oxalato,  
methylmalonato, or tatronato) and [PtIV(HMI)2Y2Cl2] (Y = hydroxo, acetato,  
or chloro) were synthesized and characterized by IR spectroscopy, 13C and  
195Pt NMR spectroscopy and elemental anal. Among the complexes  
synthesized, [PtII(hexamethyleneimine)2(1,1-cyclobutanedicarboxylato)]·cnt  
dot.H2O was examined by single-crystal x-ray diffraction. The slightly  
distorted square planar coordination environment of the Pt metal includes  
the amino group of the hexamethyleneimine (HMI) mol. and the O atoms of  
the carboxylato ligand. The cyclobutanedicarboxylic acid (CBDCA) mol.  
adopts six-member chelating rings with Pt. H bonding plays an important  
part in holding the crystal lattice together.  
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2002:838402 CAPLUS  
DN 138:146626  
TI Synthesis and characterization of cis-bis-heptamethyleneimine  
platinum(II) dicarboxylate complexes: crystal structure  
of cis-[Pt(heptamethyleneimine)2(malonate)]·H2O  
AU Mukhopadhyay, Uday; Thurston, John H.; Whitmire, Kenton H.; Khokhar, Abdul  
R.  
CS M.D. Anderson Cancer Center, Department of Experimental Therapeutics, The  
University of Texas, Houston, TX, 77030, USA  
SO Polyhedron (2002), 21(23), 2369-2374  
CODEN: PLYHDE; ISSN: 0277-5387  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
OS CASREACT 138:146626  
AB New Pt complexes cis-[Pt(L)2X] (L = heptamethyleneimine and X =  
1,1-cyclobutanedicarboxylate (CBDCA), oxalate, malonate, methylmalonate,  
ethylmalonate, dimethylmalonate, or diethylmalonate ligand) were  
synthesized and characterized by elemental anal., IR, and 195Pt NMR  
spectroscopy. The crystal structure of cis-[Pt(L)2(malonate)]·H2O  
was determined by x-ray crystallog. In all of the mols., the Pt atom adopts a  
distorted square-planar geometry. Two of the coordination sites of the  
metal center are occupied by heptamethyleneimine ligands, which are  
arranged in a cis orientation. The coordination sphere of the metal is  
completed through interaction of the Pt with two of the O atoms of the  
malonate ligand, giving a six-membered chelate ring. In the solid state,  
an intricate network of H bonds is found to exist between carbonyl O  
atoms, amine H atoms and included solvent H2O.  
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2002:261652 CAPLUS  
DN 137:79002

TI Specific features of catalytic hydrosilylation in siloxane systems in the presence of sulfoxide-containing platinum(II) complexes  
 AU De Vekki, D. A.; Ol'sheev, V. A.; Spevak, V. N.; Skvortsov, N. K.  
 CS St. Petersburg State Institute of Technology, St. Petersburg, Russia  
 SO Russian Journal of General Chemistry (Translation of Zhurnal Obshchei Khimii) (2001), 71(12), 1912-1923  
 CODEN: RJGCEK; ISSN: 1070-3632  
 PB MAIK Nauka/Interperiodica Publishing  
 DT Journal  
 LA English  
 OS CASREACT 137:79002  
 AB The rate of addition of  $\text{MeSiH(OSiMe}_3)_2$ ,  $\text{Me}_2\text{SiHOSiMe}_3$ , and  $(\text{Me}_2\text{SiH})_2\text{O}$  to vinylsiloxanes  $\text{ViMeSi(OSiMe}_3)_2$ ,  $\text{ViMe}_2\text{SiOSiMe}_3$ , and  $(\text{ViMe}_2\text{Si})_2\text{O}$  in the presence of square-planar Pt complexes  $[\text{Pt}(\text{LL}')\text{X}_2]$  (L and L' are neutral ligands, and X is an anionic ligand) decreases in the following series of L and L':  $\text{Ph}_3\text{PS} > \text{MeS(O)Tol-p} > \text{MeCOD} > \text{CH}_2\text{:CH}_2 \approx \text{COD} > \text{Et}_2\text{SO} > \text{Et}_2\text{S} > \text{Me}_2\text{SO} \gg 2\text{-aminopyridine} > \text{Py} > 2\text{-methylpyridine}$ . Variation of X, the ligands L and L' remaining unchanged, decreases the reaction rate in the series:  $\text{C}_2\text{O}_4^{2-} > \text{NO}_3^- > \text{Cl}^- \gg \text{Br}^-$ . Mixed-ligand complexes like  $(-)-[\text{Pt}(\text{MeSOTol-p})\text{PyCl}_2]$  having a cis structure are more efficient catalysts than the corresponding trans isomers in the hydrosilylation of siloxanes. Reactions of sulfoxide Pt(II) complexes with vinylsiloxanes and Si hydrides result in isomerization of the metal complex and dissociation of the sulfoxide; bis-sulfoxide complexes undergo deoxygenation of the sulfoxide ligand with formation of colloidal Pt. It was presumed that the active form of the catalyst is its trans isomer; it reacts with Si hydride, leading to replacement of the sulfoxide ligand in the inner sphere of Pt(II) complex. The reactivity of Si hydrides toward vinylsiloxanes in the presence of sulfoxide Pt(II) complexes decreases in the series  $(\text{Me}_2\text{SiH})_2\text{O} > \text{Me}_2\text{SiHOSiMe}_3 > \text{MeHSi(OSiMe}_3)_2$ , and reactivity of the vinylsiloxanes decreases in the order  $\text{ViMe}_2\text{SiOSiMe}_3 > \text{ViMeSi(OSiMe}_3)_2 > (\text{ViSiMe}_2)_2\text{O}$ . These series conform to increase of the pos. charge on the Si atom and decrease in steric hindrance created by the substituents thereon.

RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 9 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2002:249587 CAPLUS  
 DN 137:362598  
 TI Synthesis and selective tumor targeting properties of water soluble porphyrin-Pt(II) conjugates  
 AU Song, Rita; Kim, Yeong-Sang; Sohn, Youn Soo  
 CS Korea Institute of Science and Technology, Sodaemun-ku, Seoul, 130-650, S. Korea  
 SO Journal of Inorganic Biochemistry (2002), 89(1-2), 83-88  
 CODEN: JIBIDJ; ISSN: 0162-0134  
 PB Elsevier Science Inc.  
 DT Journal  
 LA English  
 AB We have designed and synthesized a series of novel water soluble porphyrins and their platinum(II) conjugates,  $\text{cis}-[(\text{Por})(\text{dmsO})\text{X}]$ , where  $\text{Por} = 5\text{-(4-pyridyl)-10,15,20-tris(4-sulfonatophenyl)porphyrin (PyTPPS)}$  or  $5\text{-[4-(3-aminopropyl)pyridiniumyl]-10,15,20-tris(4-sulfonatophenyl)porphyrin (PyTPPS-NPn)}$ ,  $\text{X} = 2\text{Cl}$ , 1,1-cyclobutanedicarboxylic acid, oxalate, or malonate. Their biodistribution in tumor bearing mouse was examined along with their antitumor activity against murine leukemia L1210 cell line. The representative complex  $\text{PtII}[(\text{PyTPPS})(\text{dmsO})\text{Cl}_2]$  exhibited a significant accumulation in tumor tissue with a tumor/muscle ratio of 7 after 24 h post injection. The antitumor activity of the title compds. was marginal (T/C: 95-117%), but it was found that platinum(II) coordination to the porphyrin periphery did not affect the tumor



accumulating properties of the porphyrin permitting further derivatization for efficient delivery of the Pt(II) antitumor agent.

RE.CNT 29      THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 10 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2002:146233 CAPLUS  
DN 136:334305  
TI Synthesis, characterization, and antitumor activity of platinum(II) complexes of mixed ammine/amine with bidentate carboxylates  
AU Zhang, Jinchao; Gong, Yuqin; Zheng, Xiaoming  
CS Department of Chemistry, Zhejiang University, Hangzhou, 310028, Peop. Rep. China  
SO Synthesis and Reactivity in Inorganic and Metal-Organic Chemistry (2002), 32(1), 49-57  
CODEN: SRIMCN; ISSN: 0094-5714  
PB Marcel Dekker, Inc.  
DT Journal  
LA English  
OS CASREACT 136:334305  
AB Complexes Pt(II)(CH<sub>3</sub>NH<sub>2</sub>)(NH<sub>3</sub>)[O<sub>2</sub>C-(CH<sub>2</sub>)<sub>n</sub>-CO<sub>2</sub>].0.5H<sub>2</sub>O (1-3, n = 0, 1 and 2, resp.) were synthesized for the 1st time. At the same time, the authors also synthesized three precursor complexes. They were characterized by elemental analyses, molar conductance, differential thermal analyses and spectral (IR, UV, <sup>1</sup>H NMR) studies. In vitro antitumor activity results indicate that complexes 1-3 have significant activity against HL-60 and U937, but show poor activity against K562, (HL-60, U937 and K562 are human leukemic tumor cell lines).

RE.CNT 5      THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 11 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2000:879300 CAPLUS  
DN 134:172294  
TI Synthesis, structure, and biological activity of mixed-ligand platinum(II) complexes with aminonitroxides  
AU Sen', V. D.; Rukina, N. A.; Tkachev, V. V.; Pis'menskii, A. V.; Volkova, L. M.; Goncharova, S. A.; Raevskaya, T. A.; Tikhomirov, A. G.; Gorbacheva, L. B.; Konovalova, N. P.  
CS Institute of Problems of Chemical Physics, Russian Academy of Sciences, Chernogolovka, 142432, Russia  
SO Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (2000), 49(9), 1613-1619  
CODEN: RCBUEY; ISSN: 1066-5285  
PB Consultants Bureau  
DT Journal  
LA English  
OS CASREACT 134:172294  
AB Mixed-ligand platinum complexes cis-PtII(R<sub>6</sub>NH<sub>2</sub>)(NH<sub>3</sub>)X<sub>2</sub> and cis-PtII(R<sub>5</sub>NH<sub>2</sub>)(NH<sub>3</sub>)X<sub>2</sub> (R<sub>6</sub> is 2,2,6,6-tetramethyl-4-piperidyl-1-oxyl and R<sub>5</sub> is 2,2,5,5-tetramethyl-3-pyrrolidinyl-1-oxyl) were synthesized by either the reaction of aminonitroxides RNH<sub>2</sub> with Na[PtII(NH<sub>3</sub>)Cl<sub>2</sub>I] generated in situ (for X<sub>2</sub> = ClI) or by replacement of the iodo-chloro ligands in cis-PtII(RNH<sub>2</sub>)(NH<sub>3</sub>)ClI by dichloro and oxalato ligands. The complexes obtained were characterized by elemental anal. and by IR, UV, and ESR spectra. For cis-PtII(R<sub>5</sub>NH<sub>2</sub>)(NH<sub>3</sub>)Cl<sub>2</sub>, crystal and mol. structures were determined by x-ray diffraction anal. Cisplatin accelerates autoxidn. of Me linoleate and the platinum nitroxide complexes synthesized exhibit antioxidant properties. The rate of isolated DNA binding with the new complexes is almost as high as that for cisplatin. Cis-PtII(R<sub>6</sub>NH<sub>2</sub>)(NH<sub>3</sub>)Cl<sub>2</sub> exhibits the highest antitumor activity. The high antitumor activity of platinum nitroxide complexes shows that the possible radical component is not a crucial factor in the cytotoxic action of cisplatin.

L11 ANSWER 12 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2000:871438 CAPLUS  
 DN 134:172278  
 TI Synthesis, characterization, and representative crystal structure of lipophilic platinum(II) (homopiperazine)carboxylate complexes  
 AU Ali, Mohammad S.; Powers, Christopher A.; Whitmire, Kenton H.; Guzman-Jimenez, Ilse; Khokhar, Abdul R.  
 CS Department of Clinical Investigation, The University of Texas M. D. Anderson Cancer Center, Houston, TX, 77030, USA  
 SO Journal of Coordination Chemistry (2001), 52(3), 273-287  
 CODEN: JCCMBQ; ISSN: 0095-8972  
 PB Gordon & Breach Science Publishers  
 DT Journal  
 LA English  
 OS CASREACT 134:172278  
 AB New lipophilic platinum(II) complexes [Pt(HPIP)L<sub>2</sub>] and [Pt(HPIP)L] (HPIP = homopiperazine; L = acetate, propionate, butyrate, pentanoate, hexanoate, heptanoate, octanoate, nonanoate, decanoate, undecanoate, laurate, tridecanoate, myristate, pentadecanoate, palmitate, or heptadecanoate; and LL = oxalate, or tartronate) were synthesized and characterized by elemental anal., IR, <sup>13</sup>C NMR, and <sup>195</sup>Pt NMR. In addition, the crystal structure of a representative complex, [Pt(II)(HPIP)(pentadecanoate)<sub>2</sub>], was determined by x-ray diffraction. The crystals were monoclinic, space group P2<sub>1</sub>/c, with a 28.212(6), b 3.661(3), c 10.218(2) Å, and Z = 4. A total of 3940 reflections were collected, and the structure refined to R<sub>1</sub> = 0.0522 and wR<sub>2</sub> = 0.1333. The slightly distorted square plane of the platinum included the amino groups of the HPIP mol. in cis positions and oxygens from two monodentate pentadecanoates. The HPIP mol. was in a boat conformation and formed five- and six-member chelating rings with platinum. Together, these mols. formed an intricate network of intermol. hydrogen bonds that held the crystal lattices together.

RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 13 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2000:682591 CAPLUS  
 DN 133:368767  
 TI Synthesis, characterization and antitumor activities of platinum (II) complexes of ammine/amine with bidentate carboxylate  
 AU Zhang, Jin-Chao; Gong, Yu-Qiu; Zheng, Xiao-Ming  
 CS Department of Chemistry, Zhejiang University, Hangzhou, 310028, Peop. Rep. China  
 SO Wuji Huaxue Xuebao (2000), 16(4), 665-668  
 CODEN: WHUXEO; ISSN: 1001-4861  
 PB Wuji Huaxue Xuebao Bianjibu  
 DT Journal  
 LA Chinese  
 OS CASREACT 133:368767  
 AB [Pt(MeNH<sub>2</sub>)(NH<sub>3</sub>)[(OOC)<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>] (n = 0, 1, 2) were synthesized for the 1st time. At the same time, the three precursor complexes also were synthesized. They were characterized by elemental analyses, molar conductance, DTA and spectral (IR, UV, <sup>1</sup>H NMR) studies. In vitro antitumor activity results indicated that these complexes have activity against HL-60 and U937, but show poor activity against K562.

L11 ANSWER 14 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2000:604644 CAPLUS  
 DN 133:368702  
 TI Synthesis and characterization of Pt(II) complexes with amine and carboxylato ligands. Crystal structure of (1,1-cyclobutanedicarboxylato)di(ethylamine)platinum(II)·H<sub>2</sub>O

AU Rochon, F. D.; Gruia, L. M.  
CS Department of Chemistry, Universite du Quebec a Montreal, Montreal, QC,  
H3C 3P8, Can.  
SO Inorganica Chimica Acta (2000), 306(2), 193-204  
CODEN: ICHAA3; ISSN: 0020-1693  
PB Elsevier Science S.A.  
DT Journal  
LA English  
OS CASREACT 133:368702  
AB Two methods for the synthesis of cis-PtA<sub>2</sub>X<sub>2</sub> (A<sub>2</sub> = bidentate amine or two monodentate amines and X<sub>2</sub> = bidentate or two monodentate carboxylato ligands) were evaluated. The 35 compds. were characterized by multinuclear NMR and IR spectroscopies. The <sup>195</sup>Pt NMR chemical shifts were in the range -1615 to -1976 ppm, the higher field values corresponding to the complexes containing bidentate ligands. The coupling consts. 3J(<sup>195</sup>Pt-1H) are .apprx.35 Hz, while the 2J(<sup>195</sup>Pt-1HN) are .apprx.70 Hz. One coupling constant 2J(<sup>195</sup>Pt-13C) (53 Hz) was also measured. The crystal structure of the compound, cis-Pt(1,1-cyclobutanedicarboxylato)(EtNH<sub>2</sub>)<sub>2</sub>·H<sub>2</sub>O belongs to the space group P2<sub>1</sub>/n with a 9.468(5), b 9.365(4), c 16.473(7) Å, β 105.08(3)°, Z = 4 and R<sub>1</sub> = 0.0576. The Pt-N bond distances are 1.992(5) and 2.020(5) Å, while the Pt-O bonds are 2.000(4) and 2.015(4) Å. The mols. are held together by intermol. H-bonds involving the lattice H<sub>2</sub>O mols. and the two free carbonyl O atoms and between the amino H atoms and the Pt-bonded C-O groups.

RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 15 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2000:398530 CAPLUS  
DN 133:129204  
TI Synthesis and characterization of platinum(II) complexes with 3-methylpiperidine: crystal and molecular structure of [Pt(3-methylpiperidine)<sub>2</sub>(malonato)]·H<sub>2</sub>O  
AU Khan, S. Rounaq Ali; Guzman-Jimenez, Ilse; Whitmire, Kenton H.; Khokhar, Abdul R.  
CS Department of Clinical Investigation, The University of Texas M.D. Anderson Cancer Center, Houston, TX, 77030, USA  
SO Polyhedron (2000), 19(8), 983-989  
CODEN: PLYHDE; ISSN: 0277-5387  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
AB New Pt complexes [Pt(3-mepip)<sub>2</sub>X] (3-mepip = 3-methylpiperidine, and X = dichloro, sulfato, oxalato, malonato, methylmalonato, dimethylmalonato, tartronato, 1,1-cyclopropanedicarboxylato (CPDCA) or 1,1-cyclobutanedicarboxylato (CBDCA) ligand) were synthesized and characterized by elemental anal., IR spectroscopy and <sup>195</sup>Pt NMR spectroscopy. The crystal structure of [Pt(3-mepip)<sub>2</sub>(malonato)]·0.79H<sub>2</sub>O was determined by single crystal x-ray diffraction. In this complex Pt has slightly distorted square planar geometry with two adjacent corners being occupied by two nitrogens of 3-methylpiperidine, whereas the remaining two adjacent corners are occupied by two O atoms of the malonato group. An intricate network of intermol. H bonds holds the crystal lattice together. In the other complexes, 3-mepip acts as nonleaving ligands, whereas the carboxylato ligands act as leaving groups.

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 16 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2000:398529 CAPLUS  
DN 133:129203  
TI Synthesis and characterization of piperidine platinum(II) complexes with dicarboxylates: crystal and molecular structure of

cis-[Pt(piperidine)2Cl2]·H2O  
 AU Khan, S. Rounaq Ali; Guzman-Jimenez, Ilse; Whitmire, Kenton H.; Khokhar, Abdul R.  
 CS Department of Clinical Investigation, The University of Texas M.D. Anderson Cancer Center, Houston, TX, 77030, USA  
 SO Polyhedron (2000), 19(8), 975-981  
 CODEN: PLYHDE; ISSN: 0277-5387  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 AB New Pt complexes cis-[Pt(PIP)2X] (PIP = piperidine and X = dichloro, sulfato, oxalato, malonato, methylmalonato, dimethylmalonato, tartronato, 1,1-cyclopropyldicarboxylato (CPDCA) or 1,1-cyclobutyldicarboxylato (CBDCA) ligand) were synthesized and characterized by elemental anal., IR, and 195Pt NMR spectroscopy. The crystal structure of cis-[Pt(PIP)2Cl2]·H2O was determined by x-ray crystallog. In this complex Pt has slightly distorted square planar geometry with two adjacent corners being occupied by two N atoms of piperidine, whereas the remaining two adjacent corners are occupied by two chloride atoms. An intricate network of intermol. H bonding holds the crystal lattice together. In these complexes, piperidine acts as nonleaving ligand, whereas the dicarboxylic acids act as leaving groups.  
 RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 17 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2000:281268 CAPLUS  
 DN 133:12057  
 TI Synthesis and characterization of oxaliplatin  
 AU Pu, Shaoping; Yang, Yikun; Gao, Wengui; Yu, Yao; Liu, Weiping  
 CS Kunming Institute of Precious Metals, Kunming, 650221, Peop. Rep. China  
 SO Guijinshu (2000), 21(1), 26-27  
 CODEN: GUIJE7; ISSN: 1004-0676  
 PB Guijinshu Jikan Bianjibu  
 DT Journal  
 LA Chinese  
 AB A new synthesis process with good stability and high yield for production of cis-oxalato(trans-(R,R)-(-)-1,2-cyclohexanediamine)platinum(II) (oxaliplatin) was introduced. The chemical structure of oxaliplatin was identified by using elemental anal. as well as IR, MS, UV and 1H NMR spectroscopy etc.  
 L11 ANSWER 18 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1999:106360 CAPLUS  
 DN 130:276341  
 TI Heterobimetallic complexes of platinum(II) with diferrocenylphenylphosphine and their in vitro activity against P388 leukemia  
 AU Al-Allaf, Talal A. K.; Rashan, Luay J.  
 CS Department of Chemistry, Faculty of Science, Applied Science University, Amman, 11931, Jordan  
 SO Applied Organometallic Chemistry (1999), 13(1), 63-68  
 CODEN: AOCHEX; ISSN: 0268-2605  
 PB John Wiley & Sons Ltd.  
 DT Journal  
 LA English  
 AB Four platinum(II) complexes of the general formula cis-[Pt{(Ferr)2PhP}(DMSO)X2], where X2 = Cl2, C2O4, O2(CO)2(C6H11)2 and O2(CO)2CCH2CH2CH2, have been synthesized and characterized physicochem. and spectroscopically as the first heterobimetallic platinum(II) complexes with the ligand diferrocenylphenylphosphine (Ferr = ferrocenyl). These complexes were tested in vitro against leukemia cell line P388 using the MTT assay. The results obtained were compared with those of cisplatin, carboplatin, oxaliplatin and 5-fluorouracil.

RE.CNT 21      THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 19 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1998:660285 CAPLUS  
DN 130:32220  
TI Chemical properties and cytotoxic activity of complexes of platinum(II) and palladium(II) containing dmsO and various anions; synthesis and structural characterization of [Pt(dmsO)<sub>2</sub>{O<sub>2</sub>(CO)<sub>2</sub>CCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>}]  
AU Al-Allaf, Talal A. K.; Rashan, Luay J.; Abu-Surrah, Adnan S.; Fawzi, Riad; Steimann, Manfred  
CS University of Mosul, Mosul, Iraq  
SO Transition Metal Chemistry (London) (1998), 23(4), 403-406  
CODEN: TMCHDN; ISSN: 0340-4285  
PB Chapman & Hall  
DT Journal  
LA English  
AB Treatment of cis-[Pt(DMSO)<sub>2</sub>Cl<sub>2</sub>] with 2 mol of KBr or KI gives the analogous dibromide or diiodide complexes. Treatment of [M(DMSO)<sub>2</sub>Cl<sub>2</sub>] [M = Pt (cis-) or Pd (trans-)] with AgNO<sub>3</sub> (2 mol) in H<sub>2</sub>O followed by 1 mol of K oxalate, maleate, cyclobutane dicarboxylate (CBDC), malonate or 2 mol of K cyclohexane carboxylate or pivalate gives the corresponding PtII and PdII carboxylate complexes. The single crystal x-ray structure determination of [Pt(DMSO)<sub>2</sub>(CBDC)] is discussed and compared with data on other related complexes. The in vitro cytotoxic activity of some of these complexes against eight tumor cell lines was examined using the MTT-colorimetric assay.

RE.CNT 22      THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 20 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1998:89683 CAPLUS  
DN 128:162186  
TI Synthesis and antitumor activity of [1,2-bis(4-fluorophenyl)ethylenediamine][dicarboxylato]platinum(II) complexes  
AU Gust, Ronald; Krauser, Rudolf; Schmid, Beate; Schoenenberger, Helmut  
CS Institut Pharmazie I, FU Berlin, Berlin, D-14195, Germany  
SO Archiv der Pharmazie (Weinheim, Germany) (1998), 331(1), 27-35  
CODEN: ARPMAS; ISSN: 0365-6233  
PB Wiley-VCH Verlag GmbH  
DT Journal  
LA English  
AB The synthesis of the diastereomeric [1,2-bis(4-fluorophenyl)ethylenediamine][dicarboxylato]platinum(II) complexes, rac- and meso-4F-Pt(X) [X = oxalato (Ox), malonato (Mal), hydroxymalonato (OHMal), phenylmalonato (PhMal), tetrahydro-4H-pyran-4,4-dicarboxylato (Thpdc)], the evaluation of their structure, water solubility, resistance against attack by nucleophiles, and growth inhibiting properties on the human MCF-7 breast cancer cell line are described [parent compds.: rac-4F-Pt(CBDC), and meso-4F-Pt(CBDC); reference complexes: carboplatin, cisplatin, rac- and meso-4F-PtCl<sub>2</sub>]. The most active 4F-Pt(X) complexes, rac-4F-Pt(Mal), rac-4F-Pt(OHMal), and rac-4F-Pt(Thpdc), equal the parent compound rac-4F-Pt(CBDC) as well as cisplatin and surpass carboplatin in their effect on the MCF-7 breast cancer cell line. Their water solubility, which is of importance for an application in the cancer chemotherapy, is higher than that of rac-4F-Pt(CBDC), especially in the case of rac-4F-Pt(OHMal) and rac-4F-Pt(Thpdc). In comparison to the dichloroplatinum(II) analog (4F-PtCl<sub>2</sub>) the stability of the 3 compds. in the presence of the strong nucleophile iodide is markedly enhanced, which means a reduction of the protein bound drug fraction in the blood and tissue compartments accompanied by an increase of the active, free drug level.

The found physiochem. properties of these compds. meet the requirements for the transferability of their promising breast cancer inhibiting effects detected in cell culture expts. to in vivo conditions.

L11 ANSWER 21 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1997:723549 CAPLUS  
 DN 128:23003  
 TI Synthesis of platinum(II) and palladium(II) complexes containing substituted (2-aminophenyl)phosphines. Molecular structure of cis-[PtMe(2-HNC6H4PPh2)(2-H2NC6H4PPh2)]  
 AU Chatterjee, Swarup; Hockless, David C. R.; Salem, Geoffrey; Waring, Paul  
 CS Chemistry Department, The Faculties, Australian National University, Canberra, A. C. T. 0200, Australia  
 SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1997), (20), 3889-3895  
 CODEN: JCDTBI; ISSN: 0300-9246  
 PB Royal Society of Chemistry  
 DT Journal  
 LA English  
 AB Bis(unidentate ligand)platinum(II) complexes of the type cis-[PtMe2L2] (where L = 2-H2NC6H4PPhR and R = H, Me, Ph) were readily formed upon reaction of [PtMe2(cod)] (cod = cycloocta-1,5-diene) with L in n-pentane. The neutral ligand L is coordinated via the phosphorus donor atom. The complex cis-[PtMe2(2-H2NC6H4PPh2)2] underwent a novel, facile rearrangement in benzene to give cis-[PtMe(2-HNC6H4PPh2)(2-H2NC6H4PPh2)] with concomitant loss of methane. The mol. structure of the demethylated complex has been confirmed by an x-ray anal. Mono(bidentate ligand)platinum(II) complexes of the type [PtCl(Me)L] (where L = 2-H2NC6H4PPhR and R = Me or Ph) have been prepared by treating the appropriate ligand with [PtCl(Me)(cod)] in dichloromethane. Further reaction with HCl gave the dichloroplatinum(II) complexes [PtCl2L]. Substitution of the chloro groups in [MCl2L] (where M = PdII or PtII, L = 2-H2NC6H4PPhR and R = Me or Ph) can be achieved by reaction with silver nitrate in acetonitrile followed by the addition of sodium oxalate to give the complexes [M(C2O4)L]. These mono(bidentate ligand) complexes are seen as potential anticancer agents. Preliminary biol. studies have shown them to be active against the mouse tumor model P815 in vitro with cytotoxicities of certain of these complexes being comparable to that of cisplatin, cis-[PtCl2(NH3)2].

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 22 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1997:682245 CAPLUS  
 DN 127:302489  
 TI Process of preparing platinum cyclohexanediamine oxalate complexes of high purity  
 IN Taniuchi, Jun-ichi; Nakanishi, Chihiro; Ohnishi, Yuko  
 PA Tanaka Kikinzoku Kogyo K.K., Japan; Dediopharm S.A.  
 SO Eur. Pat. Appl., 11 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 801070	A2	19971015	EP 1996-830537	19961018 <--
	EP 801070	A3	19980826		
	EP 801070	B1	20030416		
	R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT				
	JP 09278785	A	19971028	JP 1996-86954	19960410 <--
	JP 10017587	A	19980120	JP 1996-174788	19960704 <--
	JP 3154399	B2	20010409		
	EP 1308453	A2	20030507	EP 2003-861	19961018 <--

EP 1308453	A3	20030514		
R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT				
EP 1308454	A2	20030507	EP 2003-863	19961018 <--
EP 1308454	A3	20030514		
EP 1308454	B1	20050601		
R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT				
PT 801070	T	20030731	PT 1996-830537	19961018 <--
ES 2194967	T3	20031201	ES 1996-830537	19961018 <--
PT 1308454	T	20050930	PT 2003-863	19961018
ES 2243807	T3	20051201	ES 2003-863	19961018
WO 9801454	A1	19980115	WO 1997-JP2332	19970704 <--
W: US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 881226	A1	19981202	EP 1997-929532	19970704 <--
EP 881226	B1	20031126		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 255118	T	20031215	AT 1997-929532	19970704 <--
PT 881226	T	20040331	PT 1997-929532	19970704
ES 2210543	T3	20040701	ES 1997-929532	19970704
US 5959133	A	19990928	US 1998-29682	19980303 <--
PRAI JP 1996-86954	A	19960410		
JP 1996-174788	A	19960704		
EP 1996-830537	A3	19961018		
WO 1997-JP2332	W	19970704		

OS MARPAT 127:302489

GI For diagram(s), see printed CA Issue.

AB Disclosed are processes for the preparation of platinum cyclohexanediamine oxalate complexes I (R = oxalate, oxalate derivative) with elevated yield and preventing contamination with impurities. Reaction of cis-[diaqua(trans-1,2-cyclohexanediamine)platinum(II)] with oxalic acid or oxalate derivative where the pH is adjusted to 3.0-6.0 with an alkali solution, e.g., KOH, affords I (R = oxalate, oxalate derivative).

Reaction of a cis-platinum(II) 1,2-cyclohexanediamine dihalo complex (diamine ligand is cis, trans-1 or trans-2, halo is Cl or Br) with 2.01-2.1 molar equiv silver ion solution, removing the silver halide produced, adding NaI or KI and active carbon, filtering out impurities, followed by addition of an organic dibasic acid to the filtrate gives oxalate complexes I. The preparation of complexes I starting from potassium or sodium tetrachloroplatinate and the cyclohexanediamine are performed under  $\leq 5\%$  O<sub>2</sub>, or under N<sub>2</sub>, in vacuo or in an inert gas atmospheric in deoxygenated water. Thus, for elevating a yield of I and preventing the contamination of impurities, the pH of a solution and an amount of a Ag ion are adjusted, and a reaction environment is so controlled that oxidation is difficult to occur.

L11 ANSWER 23 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:449012 CAPLUS

DN 127:75097

TI Preparation of oxalato[trans-(-)-1,2-cyclohexanediamine]platinum (II) as an anticancer agent

IN Yanai, Junichi

PA Tanaka Kikinzoku Kogyo K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

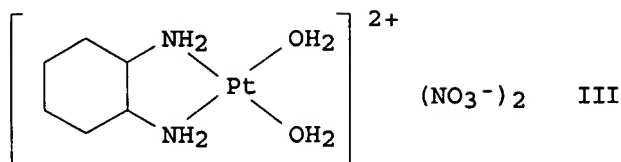
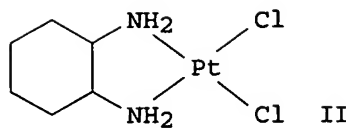
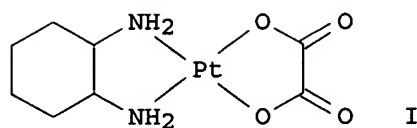
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 09132583	A	19970520	JP 1995-292760	19951110 <--
PRAI	JP 1995-292760		19951110		

GI



AB White crystalline title compound (I), useful as an anticancer agent (no data),  
 is prepared by treating trans-(-)-1,2-cyclohexanediamine with dipotassium tetrachloroplatinate in H<sub>2</sub>O at room temperature for ≥10 h, dispersing yellow needle-shaped crystalline dichloro[trans-(-)-1,2-cyclohexanediamine] platinum(II) (II) into H<sub>2</sub>O, treating with 2-fold mol. amount of AgNO<sub>3</sub>, removing AgCl by filtration, treating with KI for ≥12 h to precipitate unreacted Ag<sup>+</sup> ion, decolorizing with activated C, treating with (CO<sub>2</sub>H)<sub>2</sub>·2H<sub>2</sub>O for 4-100 h, and recrystg. from hot water. Trans-(-)-1,2-cyclohexanediamine was treated with dipotassium tetrachloroplatinate in H<sub>2</sub>O at room temperature for ≥10 h to give 99% II. This was treated with AgNO<sub>3</sub> in H<sub>2</sub>O under dark for ≥24 h and treated with KI for removing excess Ag<sup>+</sup> ions for ≥12 h to give an aqueous solution containing diaquo[trans-(-)-1,2-cyclohexanediamine]platinum(II) nitrate (III) which was reacted with (CO<sub>2</sub>H)<sub>2</sub>·2H<sub>2</sub>O for 48 h, and recrystd. from H<sub>2</sub>O to give 55% I.

L11 ANSWER 24 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:287028 CAPLUS

DN 126:337893

TI Synthesis, characterization and cytotoxic activity of new platinum (II) complexes with some nitrogen containing ligands. Part (2). With 3,5-dimethylpyrazole

AU Al-Allaf, Talal A. K.; Rashaan, Luay J.; Khazaie, Rula F.; Halaseh, Wafiq F.

CS Dep. Chem., College Science, Univ. Mosul, Mosul, Iraq

SO Asian Journal of Chemistry (1997), 9(2), 239-246

CODEN: AJCHEW; ISSN: 0970-7077

PB Asian Journal of Chemistry

DT Journal

LA English

AB Four new Pt(II) complexes, cis-[PtLL'X<sub>2</sub>] (L = L' = 3,5-dimethylpyrazole, X<sub>2</sub> = oxalato, 1,1-cyclobutyldicarboxylato, or X = cyclohexylcarboxylato, and L = 3,5-dimethylpyrazole, L' = DMSO, X = Cl) were prepared as analogs to cisplatin, carboplatin (paraplatin) and oxaliplatin; the known, anti-cancer drugs. The complexes obtained were characterized physicochem. and spectroscopically. The cytotoxic activities of these complexes were studied against Hep-2, HeLa, RD, L20B, BGM and Vero cell lines using the MTT-colorimetric assay. These activities were compared with cytotoxic activities of three reference stds.: cisplatin, carboplatin and oxaliplatin complexes. The 1,1-cyclopentyldicarboxylato complex exhibited moderate



cytotoxic activity against Hep-2 relative to the other new complexes.  
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L11 ANSWER 25 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1996:597516 CAPLUS  
DN 125:315130  
TI Synthesis and antitumor activity of platinum(II)  
complexes with trans-3,4-diamino-2,2,6,6-tetramethylpiperidine-1-oxyl  
AU Sen, Vasily D.; Golubev, Valery A.; Volkova, Ludmila M.; Konovalova, Nina  
P.  
CS Institute Chem. Physics Chernogolovka, Russian Academy Sciences, Moscow,  
Russia  
SO Journal of Inorganic Biochemistry (1996), 64(1), 69-77  
CODEN: JIBIDJ; ISSN: 0162-0134  
PB Elsevier  
DT Journal  
LA English  
AB Platinum complexes PtII(DAPO)X<sub>2</sub> with a diaminonitroxyl radical,  
trans-3,4-diamino-2,2,6,6-tetramethylpiperidine-1-oxyl (DAPO), were  
synthesized by the direct reaction of DAPO with K<sub>2</sub>PtX<sub>4</sub> (X = Cl, I) or by  
the replacement of chloro ligands in PtII(DAPO)Cl<sub>2</sub> by bromo, nitrate,  
oxalato, malonato, and 1,1-cyclobutanedicarboxylato ligands. The  
complexes thus obtained were characterized by elemental anal., IR,  
electronic and ESR spectroscopic techniques, and HPLC. The toxicity of  
comps. in terms of LD<sub>50</sub> strongly depends on the nature of the X ligands,  
and varies between 11 mg/kg (X = NO<sub>3</sub>) and 4000 mg/kg (X<sub>2</sub> =  
1,1-cyclobutanedicarboxylate). Up to 66% of mice bearing leukemia L1210  
survive after the administration of these complexes. This effect is  
comparable to the effect of cisplatin (cis-diamminedichloroplatinum(II))  
(50% survive). An increase in the life span of the rest of the animals  
ranges from 158 to 383%. The complex PtII(DAPO)Cl<sub>2</sub> appears to be more  
efficient than cisplatin against adenocarcinoma 755.
- L11 ANSWER 26 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1996:495122 CAPLUS  
DN 125:264160  
TI Synthesis, characterization and cytotoxic activity of new platinum  
(II) complexes with some nitrogen containing ligands. Part 1:  
with β-carboline alkaloids  
AU Al-Allaf, Talal A. K.; Rashan, Luay J.; Khuzaie, Rula F.; Halaseh, Wafiq  
F.  
CS Dep. Chem., Coll. Sci., Applied Sci. Univ., Amman, 11931, Jordan  
SO Asian Journal of Chemistry (1996), 8(3), 505-512  
CODEN: AJCHEW; ISSN: 0970-7077  
PB Asian Journal of Chemistry  
DT Journal  
LA English  
AB New platinum(II) complexes cis-[PtLL'X<sub>2</sub>], where L =  
harmaline, harmine; L' = DMSO, 3,5-dimethylpyrazole, cyclohexylamine and  
X<sub>2</sub> = Cl<sub>2</sub>, 1,1-cyclobutanedicarboxylate, C<sub>2</sub>O<sub>4</sub> were prepared as analog to so  
called cisplatin, carboplatin (paraplatin) and oxaliplatin, resp. These  
complexes were characterized physicochem. and spectroscopically. The  
cytotoxic activities of these complexes were studied against Hep-2, HeLa,  
RD, L20B, BGM and Vero cell lines using the MTT-colorimetric assay. These  
activities were compared with cytotoxic activities of three reference stds.;  
the cisplatin, carboplatin and oxaliplatin complexes. The significance of  
these results is discussed.
- L11 ANSWER 27 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1995:856443 CAPLUS  
DN 123:274391  
TI Oxidation of platinum(II) complexes to platinum(IV)  
complexes

IN Komota, Yasunobu  
PA Tanaka Precious Metal Ind, Japan  
SO Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07188270	A	19950725	JP 1993-348426	19931227 <--
PRAI	JP 1993-348426		19931227		

OS MARPAT 123:274391

AB PtI2(A1-2)(B1-2) (A1-2 = amines; B1-2 = Cl, Br, I, carboxylato), useful as antitumor agents, are prepared by oxidation of Pt(A1-2)(B1-2) by I in aprotic polar solvents. A suspension of Pt(C2O4)(1-dach) (dach = 1,2-diaminocyclohexane) in DMF was treated with I at 70° for 1 h to give 76% Pt(C2O4)I2(1-dach) (I). I increase 273% the life span of mice injected with L1210 tumor cells at 25 mg/kg i.p. against untreated mice.

L11 ANSWER 28 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:848009 CAPLUS

DN 123:305136

TI Synthesis and spectral study of isomeric platinum(II) complexes of  $\beta$ -aminoethanesulfonic acid

AU Paatashvili, T. V.; Golovaneva, I. F.; Muraveiskaya, G. S.; Tsivadze, A. Yu.; Shchelokov, R. N.

CS Inst. Obshch. Neorg. Khim. im. N. S. Kurnakova, Moscow, Russia

SO Zhurnal Neorganicheskoi Khimii (1995), 40(8), 1340-5

CODEN: ZNOKAQ; ISSN: 0044-457X

PB MAIK Nauka

DT Journal

LA Russian

AB The reactivity of cis- and trans-K2[PtL2Cl2].nH2O (HL =  $\beta$ -aminoethanesulfonic acid; n = 5 and 1, resp.) was studied toward reagents which differ in nature. Isomers of K2[PtL2X2].nH2O (X = Oh, Cl, Br, Br, I, NCS, NO2; n = 0-5), [PtL2(NH3)2] and K2[PtL2(OH)2] were isolated. [Pt(HL)2Cl2] was obtained by ion exchange. Substitution occurs with retention of the geometry. The electronic spectra of the complexes were compared.

L11 ANSWER 29 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:219521 CAPLUS

DN 122:70585

TI Synthesis of water-soluble platinum(II) complexes stabilized with trimethylstibane. Stibane transfer in aqueous solution

AU Miyamoto, T. Ken

CS Dep. Chem., Sch. Sci., Kitasato Univ., Kanagawa, 228, Japan

SO Chemistry Letters (1994), (11), 2031-2

CODEN: CMLTAG; ISSN: 0366-7022

PB Nippon Kagakkai

DT Journal

LA English

AB Trimethylstibane-platinum(II) complexes were prepared. They have relatively low thermal stability in solution. The crystal structures of [Pt(SbMe3)4](NO3)2·H2O was determined by x-ray anal.

L11 ANSWER 30 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:714471 CAPLUS

DN 121:314471

TI A new series of water-soluble platinum(II) complexes stabilized with trimethylarsine. Their synthesis, crystal structures, and solution equilibria

AU Miyamoto, T. Ken

CS School of Science, Kitasato University, Kanagawa, 228, Japan

SO Chemistry Letters (1994), (10), 1971-4  
 CODEN: CMLTAG; ISSN: 0366-7022  
 DT Journal  
 LA English  
 AB H<sub>2</sub>O-soluble Pt(II) complexes stabilized with trimethylarsine were synthesized for the 1st time. Crystal structures of the complexes, e.g., cis-[Pt(NO<sub>3</sub>)<sub>2</sub>(AsMe<sub>3</sub>)<sub>2</sub>], cis-[Pt(OH)(AsMe<sub>3</sub>)<sub>2</sub>]<sub>2</sub>(NO<sub>3</sub>)<sub>2</sub>, cis-[Pt(OH)<sub>2</sub>(AsMe<sub>3</sub>)<sub>2</sub>]<sub>2</sub>·5H<sub>2</sub>O, were determined by x-ray diffraction method. The <sup>13</sup>C NMR spectroscopy demonstrated the solution equilibrium among these species.

L11 ANSWER 31 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1994:523808 CAPLUS  
 DN 121:123808  
 TI Synthesis and in vitro cytotoxicity of 1,3-dioxolane-2-(2-ethanamine)-2-methanamine platinum(II) complexes  
 AU Kim, Dae Kee; Gam, Jongsik; Kim, Key H.  
 CS Life Sci. Res. Cent., Sunkyong Ind., Suwon, 440-745, S. Korea  
 SO Bioorganic & Medicinal Chemistry Letters (1994), 4(7), 911-16  
 CODEN: BMCLE8; ISSN: 0960-894X  
 DT Journal  
 LA English  
 AB The synthesis and in vitro cytotoxicity of novel 1,3-dioxolane-2-(2-ethanamine)-2-methanamine Pt(II) complexes having a 7-membered ring structure are described. Cisplatin-resistant murine L1210 leukemia cells have lower cross-resistance to this class of compds. than to cisplatin and carboplatin, and the human stomach cancer cell lines, SNU-1, SNU-5, and SNU-16, are highly sensitive to the members of this class.

L11 ANSWER 32 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1994:234810 CAPLUS  
 DN 120:234810  
 TI Optically pure cis-oxalato(trans-1,2-cyclohexanediamine)Pt(II) and process for resolving optical isomers of a platinum complex compound  
 IN Tozawa, Takeshi; Komoda, Yasunobu; Ohnishi, Junji; Masuda, Yukie; Taniuchi, Junichi; Nakanishi, Chihiro; Okamoto, Koji; Ohnishini, Yuko  
 PA Tanaka Kikinzoku Kogyo K. K., Japan  
 SO Eur. Pat. Appl., 20 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 567438	A1	19931027	EP 1993-830160	19930409 <--
	EP 567438	B1	19990113		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	JP 06287021	A	19941011	JP 1992-129668	19920422 <--
	JP 06211883	A	19940802	JP 1993-19508	19930112 <--
	US 5298642	A	19940329	US 1993-43577	19930407 <--
	US 5338874	A	19940816	US 1993-43901	19930407 <--
	ES 2125320	T3	19990301	ES 1993-830160	19930409 <--
PRAI	JP 1992-129668	A	19920422		
	JP 1993-19508	A	19930112		

AB A process of optically resolving an optically active platinum complex consisting of a mixture of a D-isomer and an L-isomer uses HPLC with a column packed with a chiral filler. The chiral filler may be, for example, a cellulose ester derivative, a cellulose carbamate derivative, an amylose carbamate derivative, a polymethacrylic acid ester and β- and γ-cyclodextrin. An optically pure cis-oxalato (trans-1,2-cyclohexanediamine) Pt(II) separated from a D-isomer by this process is found to be remarkably effective as a raw material for preparing a carcinostatic agent. Complete optical purity of the compound is reflected in a lower m.p. as compared with that of an impure substance.

L11 ANSWER 33 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:123364 CAPLUS

DN 120:123364

TI Synthesis, structure, and antitumor testing of platinum(II) and palladium(II) complexes of 1,6-diaminotetrahydropyrrolo[2,3-b]pyrrole-2,5(1H,4H)-dione

AU Borrell, Jose I.; Beti, Carlos; Ventosa, Nora; Garcia-Puig, Eduard; Planas, Carles; Alvarez-Larena, Angel; Piniella, Juan F.

CS Inst. Quim. Sarria, Univ. Ramon Llull, Barcelona, E-08017, Spain

SO Chemische Berichte (1993), 126(10), 2159-65

CODEN: CHBEAM; ISSN: 0009-2940

DT Journal

LA English

AB The syntheses of [MLCl<sub>2</sub>] (M = Pt, Pd; L = 1,6-diaminotetrahydropyrrolo[2,3-b]pyrrole-2,5(1H,4H)-dione) are described. [MLCl<sub>2</sub>] contain a 6-membered chelate ring with 4 N atoms. An x-ray diffraction study of [PdLCl<sub>2</sub>] shows a distorted sofa conformation for this chelate ring. [MLCl<sub>2</sub>] exhibited in the 1H-NMR spectrum an ABgem system for the amino protons. In vitro ICL50 and ICT50 and in vivo antitumor activities were determined for [MLCl<sub>2</sub>]. The corresponding dicarboxylato complexes were obtained by the reaction of [PtLCl<sub>2</sub>] with Ag<sub>2</sub>SO<sub>4</sub> followed by the addition of Ba(OH)<sub>2</sub> and oxalic, malonic, hydroxymalonic, and 1,1-cyclobutanedicarboxylic acid.

L11 ANSWER 34 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1993:224295 CAPLUS

DN 118:224295

TI Nuclear magnetic resonance investigation of the hydrogen peroxide oxidation of platinum(II) complexes. Crystal and molecular structures of sodium trans-dihydroxobis(malonato)platinate(IV) hexahydrate and sodium trans-dihydroxobis(oxalato)platinate(IV) hexahydrate

AU Dunham, S. O.; Larsen, R. D.; Abbott, E. H.

CS Dep. Chem., Montana State Univ., Bozeman, MT, 59717, USA

SO Inorganic Chemistry (1993), 32(10), 2049-55

CODEN: INOCAJ; ISSN: 0020-1669

DT Journal

LA English

AB NMR techniques using <sup>195</sup>Pt and <sup>13</sup>C were employed to study the formation of dihydroxo Pt(IV) compds. in the H<sub>2</sub>O<sub>2</sub> oxidation of Pt(II) complexes. The trans-dihydroxo isomer is the exclusive kinetic product for oxalato, malonato, and chloro complexes. Isotopic labeling expts. with H<sub>2</sub><sup>18</sup>O demonstrate that 1 hydroxo ligand originates from H<sub>2</sub>O<sub>2</sub>, while the trans-hydroxo ligand originates from H<sub>2</sub>O. H<sub>2</sub>O<sub>2</sub> oxidation in MeOH or EtOH gave trans-hydroxomethoxo- and trans-hydroxoethoxoplatinum(IV), resp. The structure of Na trans-dihydroxobis(malonato)platinate(IV) hexahydrate was determined by x-ray crystallog.: P.hivin.1, a 6.648(1), b 8.234(1), c 9.065(1) Å, α 63.82(1), β 70.67(1), γ 71.78(1)°, Z = 1, R = 0.0308, Rw = 0.0300. The structure of Na trans-dihydroxobis(oxalato)platinate(IV) hexahydrate also was determined by x-ray crystallog.: Cmca, a 15.562(2), b 7.200(1), c 13.840(1) Å, Z = 4, R = 0.0509, Rw = 0.0492.

L11 ANSWER 35 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1993:138586 CAPLUS

DN 118:138586

TI Stability and reactivity of dihydroxobis(trimethylphosphine) platinum(II), an intermediate species for the synthesis of a variety of water-soluble phosphine complexes

AU Miyamoto, T. Ken; Suzuki, Yoshitsugu; Ichida, Hikaru

CS Fac. Sci., Univ. Tokyo, Tokyo, 113, Japan

SO Bulletin of the Chemical Society of Japan (1992), 65(12), 3386-97

CODEN: BCSJA8; ISSN: 0009-2673

DT Journal  
LA English  
AB cis-[Pt(OH)<sub>2</sub>(PMe<sub>3</sub>)<sub>2</sub>].nH<sub>2</sub>O (I; n = 2-3), was prepared and characterized by <sup>31</sup>P, <sup>195</sup>Pt, <sup>13</sup>C, and <sup>1</sup>H NMR spectroscopy. The thermal stability of I was examined. The presence of several H<sub>2</sub>O mols. is required for its stabilization. The solution equilibrium and the reaction of I with aqueous H<sub>2</sub>O<sub>2</sub> were observed by <sup>31</sup>P NMR spectroscopy. The neutralization of I with several dicarboxylic acids afforded H<sub>2</sub>O-soluble phosphine complexes in quant. yields. Exposure of I to air gives cis-[Pt(CO<sub>3</sub>)(PMe<sub>3</sub>)<sub>2</sub>].2H<sub>2</sub>O (II). Crystal structure determination for II revealed that the carbonate anion forms a 4-membered ring with a Pt atom.

L11 ANSWER 36 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:603952 CAPLUS

DN 117:203952

TI Synthesis and characterization of platinum(II) and platinum(IV) complexes containing R-(-)-cyclohexylethylamine

AU Khokhar, Abdul R.; Deng, Yuanjian

CS M. D. Anderson Cancer Cent., Univ. Texas, Houston, TX, 77030, USA

SO Journal of Coordination Chemistry (1992), 25(4), 349-55

CODEN: JCCMBQ; ISSN: 0095-8972

DT Journal

LA English

AB A series of new Pt(II and IV) complexes containing R-(-)-cyclohexylethylamine (R-CHEA): cis-PtII(R-CHEA)<sub>2</sub>X<sub>2</sub> (X = Cl, I), cis-PtII(R-CHEA)<sub>2</sub>X' (X' = 1,1-cyclobutanedicarboxylate, oxalate), and PtIV(R-CHEA)<sub>2</sub>Cl<sub>2</sub>X''<sub>2</sub> (X'' = OH, Cl, O<sub>2</sub>CCF<sub>3</sub>, O<sub>2</sub>CCCl<sub>3</sub>, OAc, O<sub>2</sub>CCH<sub>2</sub>Me) was synthesized and characterized by elemental anal. and by IR and <sup>13</sup>C- and <sup>195</sup>Pt-NMR spectroscopy.

L11 ANSWER 37 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:439083 CAPLUS

DN 117:39083

TI The stability and reactivity of dihydroxy bis(trimethylphosphine) platinum(II)

AU Miyamoto, T. Ken; Suzuki, Yoshitsugu; Ichida, Hikaru

CS Fac. Sci., Univ. Tokyo, Tokyo, 113, Japan

SO Chemistry Letters (1992), (5), 839-42

CODEN: CMLTAG; ISSN: 0366-7022

DT Journal

LA English

AB cis-[Pt(PMe<sub>3</sub>)<sub>2</sub>(OH)<sub>2</sub>].nH<sub>2</sub>O (I; n = 2-3) was isolated. The presence of water mols. is required for the stabilization of the complex. The solution equilibrium of I with some equivalent of HNO<sub>3</sub> was observed by <sup>31</sup>P NMR spectroscopy, as

well as the reaction of I with aqueous H<sub>2</sub>O<sub>2</sub>. Leaving I in air gives cis-[Pt(PMe<sub>3</sub>)<sub>2</sub>(CO<sub>3</sub>)].2H<sub>2</sub>O. The crystal structure determination has revealed

that

the carbonate anion forms a 4-membered chelate with a platinum atom.

L11 ANSWER 38 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:165135 CAPLUS

DN 116:165135

TI Synthesis, characterization, and antitumor activity of new chloroethylamine platinum complexes

AU Khokhar, Abdul R.; Xu, Quanyin; Newman, Robert A.; Kido, Yuichiro; Siddik, Zahid H.

CS Univ. Texas, M. D. Anderson Cancer Cent., Houston, TX, 77030, USA

SO Journal of Inorganic Biochemistry (1992), 45(3), 211-19

CODEN: JIBIDJ; ISSN: 0162-0134

DT Journal

LA English

AB A series of cis-bis(2-chloroethylamine)platinum(II) and platinum(IV) complexes, e.g., cis-(ClCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>)<sub>2</sub>PtCl<sub>2</sub>, were

synthesized and characterized by elemental anal., IR, and <sup>1</sup>H and <sup>195</sup>Pt NMR spectroscopic techniques. Complexes were tested in vitro against murine L1210 leukemia and human ovarian A2780 cell lines and in vivo against the L1210 leukemia model. Some of these complexes showed excellent antitumor activity in both systems. However, all were inactive against cisplatin-resistant A2780/CP cells.

L11 ANSWER 39 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:646598 CAPLUS

DN 115:246598

TI Nuclear magnetic resonance investigation of the formation of oxalato, malonato, and 2-methylmalonato complexes of platinum(II). Crystal and molecular structures of potassium anti-bis(2-methylmalonato)platinate(II) dihydrate and potassium dichloro(oxalato)platinate(II) hydrate

AU Dunham, S. O.; Larsen, R. D.; Abbott, E. H.

CS Dep. Chem., Montana State Univ., Bozeman, MT, 59717, USA

SO Inorganic Chemistry (1991), 30(23), 4328-35

CODEN: INOCAJ; ISSN: 0020-1669

DT Journal

LA English

AB NMR techniques utilizing <sup>195</sup>Pt and <sup>13</sup>C were used to study the formation of Pt(II) complexes of the dicarboxylic acids, oxalic (OxH<sub>2</sub>), malonic (MalH<sub>2</sub>), and 2-methylmalonic (MmalH<sub>2</sub>) acid. OxH<sub>2</sub> reacts with K<sub>2</sub>[PtCl<sub>4</sub>] to form the monodentate [Pt(OxH-O)Cl<sub>3</sub>]<sup>2-</sup>, which reacts to form bidentate [Pt(Ox)Cl<sub>2</sub>]<sup>2-</sup>, then [Pt(Ox)(OxH-O)Cl]<sup>2-</sup> with 1 bidentate Ox<sup>2-</sup> and 1 monodentate OxH- ligand, and, ultimately, the bis bidentate [Pt(Ox)<sub>2</sub>]<sup>2-</sup>. The structure of K<sub>2</sub>[Pt(Ox)Cl<sub>2</sub>].H<sub>2</sub>O was determined by X-ray crystallog.: triclinic, space group P<sub>2</sub>1<sub>2</sub>1, a 7.136(2), b 7.308(2), c 10.130(4) Å, α 86.75(3), β 74.58(3), γ 64.28(2)°, Z = 2, R = 0.0526, R<sub>w</sub> = 0.0518. When the starting material is [Pt(H<sub>2</sub>O)<sub>4</sub>]<sup>2+</sup>, similar complexes are observed. Analogous complexes are observed with both MalH<sub>2</sub> and MmalH<sub>2</sub>. Monodentate malH- and MmalH- complexes are observed in solution and are more stable than monodentate OxH- complexes. Monodentate complexes are demonstrated by nonequivalence of their carboxylate and carboxylato <sup>13</sup>C resonances and by their chemical shifts in <sup>195</sup>Pt NMR spectra. Two <sup>195</sup>Pt resonances are observed for [Pt(Mmal)(MmalH-O)Cl]<sup>2-</sup>, with 1 bidentate Mmal<sup>2-</sup> and 1 monodentate MmalH- ligand. Chirality at both α-carbon atoms results in 2 diastereomers of [Pt(Mmal)(MmalH-O)Cl]<sup>2-</sup>. Sep. <sup>195</sup>Pt resonances are observed for [Pt(Mmal)<sub>2</sub>]<sup>2-</sup>, in which Me groups are syn or anti with respect to the Pt coordination plane. The structure of K<sub>2</sub>[anti-Pt(Mmal)<sub>2</sub>].2H<sub>2</sub>O was determined by X-ray crystallog.: triclinic, space group P<sub>2</sub>1<sub>2</sub>1, a 4.059(1), b 9.107(2), c 10.111(2) Å, α 98.49(1), β 101.28(1), γ 101.84(1)°, Z = 1, R = 0.0456, R<sub>w</sub> = 0.0451.

L11 ANSWER 40 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:621939 CAPLUS

DN 115:221939

TI Diaminopropane platinum complex for antitumor agents

IN Shirai, Hiroyoshi; Kobayashi, Takami; Koyama, Toshiki; Hanabusa, Kenji; Hojo, Nobumasa; Kotomo, Susumu; Nakaike, Shiro

PA Taisho Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

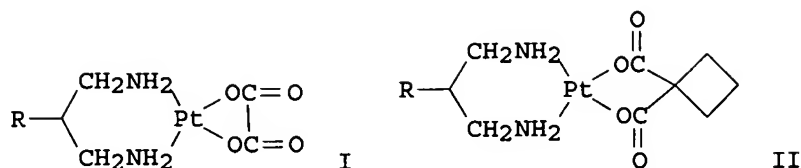
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 03093788	A	19910418	JP 1989-230667	19890906 <--
PRAI	JP 1989-230667		19890906		

OS MARPAT 115:221939  
GI



AB The diaminopropane platinum(II) complex derivs. I or II (R = C1-4 alkyl) are claimed. The complexes showed excellent antitumor effects to mice leukemia with low toxicity.

L11 ANSWER 41 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:484957 CAPLUS

DN 115:84957

TI Preparation, characterization, and antitumor activity of water-soluble aminoalkanol platinum(II) complexes

AU Khokhar, Abdul R.; Xu, Quanyun; Newman, Robert A.; Siddik, Zahid H.

CS M. D. Anderson Cancer Cent., Univ. Texas, Houston, TX, 77030, USA

SO Journal of Inorganic Biochemistry (1991), 43(1), 57-63

CODEN: JIBIDJ; ISSN: 0162-0134

DT Journal

LA English

AB Highly water-soluble aminoalkanol platinum(II) complexes were prepared and characterized by elemental anal., conductance, IR, and <sup>195</sup>Pt-NMR. In vitro and in vivo screening tests for antitumor activities against L1210 murine leukemia were performed. The compds. were far less cytotoxic than cisplatin and possessed only a moderate antitumor activity.

L11 ANSWER 42 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:220136 CAPLUS

DN 114:220136

TI Preparation and crystal structure of trans-S,S-[N,N'-bis(2-hydroxyethyl)ethylenediamine(oxalato)platinum(II)]: a spontaneous resolution of individual crystals of pure optical isomers upon recrystallization

AU Xu, Quanyun; Khokhar, Abdul R.; Bear, John L.

CS M. D. Anderson Cancer Cent., Univ. Texas, Houston, TX, 77030, USA

SO Inorganica Chimica Acta (1990), 178(1), 107-11

CODEN: ICHAA3; ISSN: 0020-1693

DT Journal

LA English

AB trans-(S,S-PtL(C<sub>2</sub>O<sub>4</sub>)) (L = N,N'-bis(2-hydroxyethyl)ethylenediamine was prepared, and its crystal structure was determined by x-ray diffraction. This pure optical compound is tetragonal, space group P4<sub>1</sub>2<sub>1</sub>2, a 6.816(5), c 26.139(15) Å, Z = 4, R = R<sub>w</sub> = 0.035. The slightly distorted square planar environment of Pt includes 2 N atoms of the diamine in cis positions and 2 O atoms from the bidentate C<sub>2</sub>O<sub>4</sub><sup>2-</sup>. The Pt-N and Pt-O distances average 2.025 and 2.037 Å, resp. The binding of the diamine ligand gives a N-Pt-N angle of 84.7°, whereas the smaller O-Pt-O angle of 82.5° probably results from a slight torsional twist of the C<sub>2</sub>O<sub>4</sub><sup>2-</sup>. The mol. chirality facilitates the formation of 2 O-H...O and 2 N-H...O H bonds per mol. This favorable pattern of H bonding is a possible driving force for resolution of the trans-S,S- pure optical isomer in a mixture upon crystallization into individual crystals.

L11 ANSWER 43 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:177322 CAPLUS

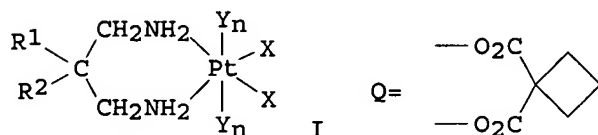
DN 114:177322

TI Preparation of new fluorocarbon platinum complexes as antitumor agents  
 IN Yamashita, Tsuneo; Iwai, Hiroyuki; Shimokawa, Kazuhiro  
 PA Daikin Industries, Ltd., Japan  
 SO PCT Int. Appl., 40 pp.  
 CODEN: PIXXD2

DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9012018	A1	19901018	WO 1990-JP454	19900404 <--
	W: AU, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
	AU 9054021	A	19901105	AU 1990-54021	19900404 <--
	AU 614901	B2	19910912		
	EP 422242	A1	19910417	EP 1990-905655	19900404 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
	US 5101054	A	19920331	US 1990-613888	19901204 <--
PRAI	JP 1989-86095	A	19890404		
	WO 1990-JP454	A	19900404		
OS	MARPAT 114:177322				
GI					



AB cis-Platinum complexes (I; R1 = F, CF3; R2 = H, F, alkyl; X = halo, ONO2; or X2 = OCH2CO2, O2CCO2, O2CCH2CO2, OSO2O, Q; Y = OH, halo; n = 0.1) are prepared. Thus, ammonolysis of CF3CMe(CO2Me) with NH3 (g) in MeOH and reduction of the resulting CF3CMe(CONH2)2 with borane in THF followed by acidification with 1N aqueous HCl gave CF3CMe(CH2NH2)2.2HCl which was allowed to react with K2PtCl4 in aqueous K2CO3 (pH 9-10) overnight at room temperature in shade to give 61.6% I (R1 = Me, R2 = CF3, X = Cl, Yn = absent) (II). Addnl. 15 I were prepared and II at 12.5 mg/kg prolonged >304% the median life span of mice inoculated with mouse leukemia cells L1210 over the control group (T/C) vs. 139% for Pt(II) cis-diamino-1,1-cyclobutanedicarboxylate.

L11 ANSWER 44 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:17090 CAPLUS

DN 114:17090

TI Synthesis and antitumor activities of platinum complexes of unsymmetrical alicyclic diamines as carrier ligands

AU Morikawa, Kazumi; Honda, Masamitsu; Endoh, Kohichi; Matsumoto, Tomoko; Akamatsu, Kenichi; Mitsui, Hiroki; Koizumi, Masuo

CS Exploratory Res. Lab., Chugai Pharm. Co., Ltd., Gotemba, 412, Japan

SO Journal of Pharmaceutical Sciences (1990), 79(8), 750-3

CODEN: JPMSAE; ISSN: 0022-3549

DT Journal

LA English

OS CASREACT 114:17090

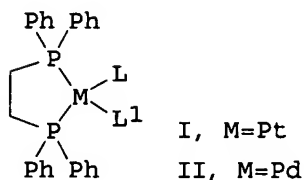
AB The synthesis and biol. activities of the Pt complexes of 2-aminomethylaziridine, 2-aminomethylazetidine, 2-aminomethylpyrrolidine, and 2-aminomethylpiperidine as carrier ligands are described. The Pt complexes of 2-aminomethylazetidine and 2-aminomethylpyrrolidine are



effective against murine tumors. In particular, 2-aminomethylazetidide(1,1-cyclobutanedicarboxylato)platinum II and 2-aminomethylpyrrolidine(1,1-cyclobutanedicarboxylato)platinum II exhibited potent antitumor activity and were soluble in water, and their antitumor activities against Colon 26 carcinoma (s.c.-i.p. system) were superior to CBDCA and comparable to CDDP.

L11 ANSWER 45 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1991:16466 CAPLUS  
 DN 114:16466  
 TI Synthesis of platinum complexes of 2-aminomethylpyrrolidine derivatives for use as carrier ligands and their antitumor activities  
 AU Morikawa, Kazumi; Honda, Masamitsu; Endoh, Kohichi; Matsumoto, Tomoko; Akamatsu, Kenichi; Mitsui, Hiroki; Koizumi, Masuo  
 CS Explor. Res. Lab., Chugai Pharm. Co., Ltd., Gotemba, Japan  
 SO Chemical & Pharmaceutical Bulletin (1990), 38(4), 930-5  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DT Journal  
 LA English  
 AB To study a new antitumor Pt complex, various Pt complexes were prepared from 2-aminomethylpyrrolidine derivs. synthesized to serve as carrier ligands and tested for their antitumor activity against Colon 26 carcinoma (s.c.-i.p. system) and P388 leukemia (i.p.-i.p. system) in mice. 2-Aminomethylpyrrolidine proved to be the most effective carrier ligand in its amine derivs. The structure-activity relationships of the carrier ligands in the Pt complexes with dichloro, oxalato, 1,1-cyclobutanedicarboxylato (L), and dichlorodihydroxo as leaving group were shown on the Colon26 carcinoma screen and were as follows: the antitumor activity of the Pt complexes with any leaving groups was decreased by the substitution of H by alkyl group (Me, Et) on N of aminomethyl and the effects of 1,1-cyclobutanedicarboxylato Pt(II) complexes completely disappeared with the same substitution on N or pyrrolidine. In all the tested Pt complexes PtLL1 (L1 = 2-aminomethylpyrrolidine) (I) exhibited the most potent antitumor activity. I was superior to Pt(NH3)2L (II) and similar to cis-Pt(NH3)2Cl2 (III) on the Colon 26 carcinoma screen but it was inferior to II and III on the P388 leukemia screen. I showed more potent antitumor activity than II against Colon 38 carcinoma (s.c.-i.p. system).

L11 ANSWER 46 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1990:526134 CAPLUS  
 DN 113:126134  
 TI Synthesis, characterization, and antitumor activity of 1,2-bis(diphenylphosphino)ethane platinum(II) and palladium(II) complexes  
 AU Khokhar, Abdul R.; Xu, Quanyun; Siddik, Zahid H.  
 CS M. D. Anderson Cancer Cent., Univ. Texas, Houston, TX, USA  
 SO Journal of Inorganic Biochemistry (1990), 39(2), 117-23  
 CODEN: JIBIDJ; ISSN: 0162-0134  
 DT Journal  
 LA English  
 GI



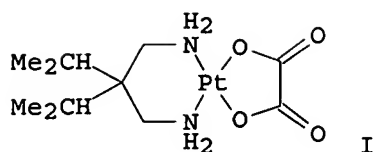
AB A number of 1,2-bis(diphenylphosphino)ethane (DPPE) monomeric

platinum(II) and palladium(II) complexes (I and II, L and L1 = monocarboxylate; LL1 = dicarboxylate) were synthesized in light of their potential antitumor activity. The metal center is coordinated with a number of carboxylate anions in the cis-configuration. These complexes were characterized by elemental anal., conductivity measurement, and various spectroscopic techniques [IR and 195Pt NMR]. In vivo screening tests for activity of these complexes were performed against the L1210/0 murine leukemia cancer model, but none displayed a significant level of antitumor activity.

L11 ANSWER 47 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1990:507966 CAPLUS  
 DN 113:107966  
 TI Synthesis and antitumor activity of platinum(II) complexes containing substituted ethylenediamine ligands  
 AU Brunner, Henri; Hankofer, Peter; Holzinger, Ulrich; Treitinger, Barbara; Schoenenberger, Helmut  
 CS Inst. Anorg. Chem., Univ. Regensburg, Regensburg, D-8400, Germany  
 SO European Journal of Medicinal Chemistry (1990), 25(1), 35-44  
 CODEN: EJMCA5; ISSN: 0223-5234  
 DT Journal  
 LA English  
 OS CASREACT 113:107966  
 AB The preparation of substituted ethylenediamines, their reactions with K2PtCl4 to give the dichloroplatinum(II) complexes, and the exchange of the chloro ligands for other leaving groups are described. The new compds. were tested as antitumor agents both in vitro using the hormone independent human mammary carcinoma cell line MDA-MB 231 as well as in vivo using the lymphocytic P388 leukemia of the CD2F1-mouse. In the P388 test, 53 of the 55 tested complexes fulfill the min. activity of 125% T/C required for a substance to be active.

L11 ANSWER 48 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1990:400540 CAPLUS  
 DN 113:540  
 TI Preparation and antitumor action of 2,2-diisopropyl-1,3-diaminopropaneoxalatoplatinum(II)  
 IN Verbeek, Francois; Meinema, Harmen Anne  
 PA Nederlandse Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek, Neth.  
 SO Eur. Pat. Appl., 8 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 357109	A2	19900307	EP 1989-201953	19890724 <--
	EP 357109	A3	19901219		
	EP 357109	B1	19931201		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	NL 8802150	A	19900316	NL 1988-2150	19880831 <--
	AT 97908	T	19931215	AT 1989-201953	19890724 <--
	US 5034553	A	19910723	US 1989-387593	19890731 <--
	JP 02108694	A	19900420	JP 1989-221855	19890830 <--
PRAI	NL 1988-2150	A	19880831		
	EP 1989-201953	A	19890724		
GI					



AB A method for preparation of the title compound (I) and its use as an antitumor agent are claimed. Thus, recrystd. 2,2-diisopropyl-1,3-diaminopropane 2HCl is reacted with K<sub>2</sub>PtCl<sub>4</sub> to form cis-dichloro-2,2-diisopropyl-1,3-diaminopropane platinum(II) (II). II is then reacted with AgNO<sub>3</sub>, the AgCl formed is removed by filtration, and potassium oxalate is added to the filtrate. The yield of I thus formed is 89%. In vitro, I is active against carcinoma HCT-116, and human ovary carcinoma A2780, including several sublines resistant to cisplatin. I also has showed antitumor activity in mice bearing murine leukemia <1210 and reticulum cell sarcoma M5076.

L11 ANSWER 49 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1990:150573 CAPLUS

DN 112:150573

TI Neutral complexes of platinum(II) and palladium(II) with 2,2'-dipyridylamine and 2,2'-dipyridylketone

AU Joshi, V. N.; Gijare, A. S.

CS Indian Drugs Res. Assoc., Pune, 411 005, India

SO Journal of the Indian Chemical Society (1989), 66(7), 474-5

CODEN: JICSAH; ISSN: 0019-4522

DT Journal

LA English

AB ML<sub>2</sub>X<sub>2</sub> (M = Pd, Pt, L = 2,2'-dipyridylamine or 2,2'-dipyridyl ketone, X = I, Br, Cl) and ML<sub>2</sub>X<sub>1</sub> (X<sub>1</sub> = C<sub>2</sub>O<sub>4</sub>) were prepared IR and NMR data suggest the L are coordinated by the pyridyl ring N atoms. Oxalate groups are bidentate. The complexes are diamagnetic and square-planar.

L11 ANSWER 50 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1990:91783 CAPLUS

DN 112:91783

TI Cis-platinumdiamine complexes, antitumorous compositions containing them, and methods for their preparation

IN Dai, Qianhuan

PA Beijing Polytechnical University, Peop. Rep. China; Xingnong Technique Development Co.

SO Brit. UK Pat. Appl., 55 pp.

CODEN: BAXXDU

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2209161	A	19890504	GB 1988-13192	19880603 <--
	GB 2209161	B	19911002		
	CN 87104027	A	19881214	CN 1987-104027	19870605 <--
	CN 1016693	B	19920520		
	US 5198564	A	19930330	US 1988-203041	19880606 <--
PRAI	CN 1987-104027	A	19870605		

OS MARPAT 112:91783

AB Cis-platinumdiamine complexes Ar<sub>1</sub>Q<sub>1</sub>N(R<sub>1</sub>)HPT(Z)<sub>2</sub>(X)<sub>2</sub>NH(R<sub>2</sub>)Q<sub>2</sub>Ar<sub>2</sub> [I; Ar<sub>1</sub>, Ar<sub>2</sub> = (hetero)aromatic, or together are a divalent (hetero)aromatic; Q<sub>1</sub>, Q<sub>2</sub> = aliphatic, divalent heterocyclic aliphatic; R<sub>1</sub>, R<sub>2</sub> = H, C<sub>1</sub>-5 alkyl, C<sub>1</sub>-10 heteroalkyl; or R<sub>1</sub> and Q<sub>1</sub> and/or R<sub>2</sub> and Q<sub>2</sub> together with the N are a saturated heterocycle ring; Z = optional OH; X = anionic ligand or part of a dianionic ligand] are prepared and used in the manufacture of medicaments for treatment of cancer. I (Ar<sub>1</sub> = Ar<sub>2</sub> = p-ClC<sub>6</sub>H<sub>4</sub>; Q<sub>1</sub> = Q<sub>2</sub> = CH<sub>2</sub>; R<sub>1</sub> = R<sub>2</sub> = H;

X = Cl; Z = OH) at 10 mg/kg i.p. inhibited L1210 mouse leukemia and S180 sarcoma cells with T/S (ratio of survival time of test and control animals) values of >252 and >260%, resp. Cis-platinum(II) di-(o-chlorobenzyl)amine diiodide was prepared by heating K<sub>2</sub>PtCl<sub>6</sub> with KI to 70°, cooling to room temperature, placing in the dark, and then reacting with o-chlorobenzylamine.

L11 ANSWER 51 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:204629 CAPLUS

DN 110:204629

TI Reactivity of platinum-coordinated oxalate ligand in oxidation reactions

AU Kukushkin, Yu. N.; Vorob'ev-Desyatovskii, N. V.; Patrabanish, K. M.; Boneva, M. K.

CS Leningr. Tekhnol. Inst., Leningrad, USSR

SO Zhurnal Obshchei Khimii (1988), 58(12), 2753-8

CODEN: ZOKHA4; ISSN: 0044-460X

DT Journal

LA Russian

AB The oxidation of oxalate coordinated to Pt(II) and Pt(IV) in amine complexes by KMnO<sub>4</sub> and Ce(SO<sub>4</sub>)<sub>2</sub> was studied. Ce(SO<sub>4</sub>)<sub>2</sub> and KMnO<sub>4</sub> only partially oxidize oxalate in the Pt(II) complexes and KMnO<sub>4</sub> does not react with the Pt(IV) complexes. The expenditure of the oxidant in the oxidation of Pt(IV)-coordinated oxalate depends on the composition of the inner sphere of the complex and the nature of the oxidant. In the presence of free H<sub>2</sub>C<sub>2</sub>O<sub>4</sub>, Pt(IV)-coordinated oxalate is partially oxidized by KMnO<sub>4</sub>. The expenditure of KMnO<sub>4</sub> on titration of a [Pt(NH<sub>3</sub>)<sub>2</sub>C<sub>2</sub>O<sub>4</sub>]-H<sub>2</sub>C<sub>2</sub>O<sub>4</sub> mixture is less than the total expenditure on oxidation of the sep. compds. (NH<sub>4</sub>)<sub>2</sub>Fe(SO<sub>4</sub>)<sub>2</sub> has a lesser effect on the oxidation than H<sub>2</sub>C<sub>2</sub>O<sub>4</sub>.

L11 ANSWER 52 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:204576 CAPLUS

DN 110:204576

TI Synthesis and characterization of a series of platinum(II) and palladium(II) complexes containing the bidentate ligand meso-1,2-diphenylethylenediamine or meso-1,2-bis(4-chlorophenyl)ethylenediamine

AU Khokhar, Abdul R.; Lumetta, Gregg J.

CS M. D. Anderson Cancer Cent., Univ. Texas, Houston, TX, 77030, USA

SO Journal of Coordination Chemistry (1989), 19(4), 321-30

CODEN: JCCMBQ; ISSN: 0095-8972

DT Journal

LA English

AB The bidentate ligands meso-1,2-diphenylethylenediamine (stein) and meso-1,2-bis(4-chlorophenyl)ethylenediamine (4-Clst) were prepared and spectroscopically characterized. [MLX<sub>2</sub>] (M = Pd or Pt; X = Cl or X<sub>2</sub> = oxalate or 1,1-cyclobutanedicarboxylate; L = stein or 4-Clst) were prepared. These complexes were characterized by IR and NMR spectroscopic techniques.

L11 ANSWER 53 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:87483 CAPLUS

DN 110:87483

TI Platinum oxalato complexes and antitumor agents containing them

IN Takamatsu, Masanori; Ikeda, Yoshiaki; Matsui, Munetaka; Nose, Hisashi

PA Kanebo, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

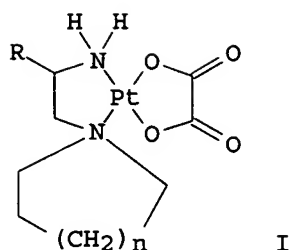
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 63174994	A	19880719	JP 1987-3779	19870109 <--
PRAI	JP 1987-3779		19870109		
OS	MARPAT 110:87483				

GI



AB The title complexes I (R = lower alkyl; n = 1, 2) are prepared as antitumor agents. 1-Pyrrolidinopropan-2-one was treated with HONH<sub>2</sub>.HCl and AcONa in H<sub>2</sub>O at 70-80° for 3 h and the resulting oxime was refluxed with LiAlH<sub>4</sub> in Et<sub>2</sub>O for 22 h to give 1-(2-aminopropyl)pyrrolidine, which was stirred in an aqueous solution of K<sub>2</sub>PtCl<sub>4</sub> at room temperature for 10 h to give cis-dichloro[1-(2-aminopropyl)pyrrolidine]platinum(II) (II). An aqueous suspension of 1.0 g II was stirred with AgNO<sub>3</sub> at room temperature in the dark for 3 days to give an aqueous solution containing cis-dinitrato[1-(2-aminopropyl)pyrrolidine]platinum(II), which was treated with 340 mg NaOCOC<sub>2</sub>O<sub>2</sub>Na at room temperature for 1 day to give 250 mg I (R = Me, n = 1) (III). III at 100 mg/kg i.p. showed an increase of life span of 156% in mice transplanted with leukemia P388, vs. 105% for cis-dichloro[1-(2-aminoethyl)piperidine]platinum(II) at 50 mg/kg i.p. A lyophilized preparation for injection containing 100 mg III/vial was prepared from a composition containing III 200, NaCl 900, mannitol 1000, and 200,000 H<sub>2</sub>O.

L11 ANSWER 54 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:87425 CAPLUS

DN 110:87425

TI Synthesis, characterization, and DNA-binding properties of (1,2-diaminoethane)platinum(II) complexes linked to the DNA intercalator acridine orange by trimethylene and hexamethylene chains

AU Bowler, Bruce E.; Ahmed, Kazi J.; Sundquist, Wesley I.; Hollis, L. Steven; Whang, Edward E.; Lippard, Stephen J.

CS Dep. Chem., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA

SO Journal of the American Chemical Society (1989), 111(4), 1299-306

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA English

AB [Pt{AO(CH<sub>2</sub>)<sub>n</sub>en}Cl<sub>2</sub>]Cl (I; AO = acridine orange; n = 3, 6) were prepared and characterized by UV spectra. Single-crystal x-ray diffraction studies of [Pt{AO(CH<sub>2</sub>)<sub>6</sub>en}O<sub>2</sub>CCO<sub>2</sub>](NO<sub>3</sub>).7H<sub>2</sub>O (II) (monoclinic space group C<sub>2</sub>/c, Z = 8) and of the ligand precursors, [AO(CH<sub>2</sub>)<sub>6</sub>OH]I and [AO(CH<sub>2</sub>)<sub>3</sub>OH]I (both ligands preparation reported, triclinic space group P<sub>2</sub>1<sub>2</sub>1, Z = 2) revealed the mol. structures and crystal packing of these compds. In II, infinite head-to-tail stacking of the acridine orange rings occurs while the {Pt(en)(C<sub>2</sub>O<sub>4</sub>)} groups stack in a pairwise fashion. In the ligands there are head-to-tail stacked acridine orange dimers with only weak interactions between the dimers. Visible absorption spectroscopy was used to compare the effects of different chain lengths and substituents on the stacking interactions of these modified acridine orange compds. in solution. The tendency of mols. to aggregate in acidic aqueous solution follows the order

[Pt{AO(CH<sub>2</sub>)<sub>3</sub>en}Cl<sub>2</sub>]+ » [Pt{AO(CH<sub>2</sub>)<sub>6</sub>en>Cl<sub>2</sub>]+ > AO »  
 [AO(CH<sub>2</sub>)<sub>6</sub>(en)]+ > [AO(CH<sub>2</sub>)<sub>3</sub>(en)]+. The interaction of I and II with DNA was also studied by absorption spectroscopy. These results, together with the previously reported covalent binding to, and superhelical unwinding of, DNA by I, support a model in which the Pt moiety binds covalently to DNA while the AO moiety is intercalated 1 or 2 base pairs away.

L11 ANSWER 55 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:75808 CAPLUS

DN 110:75808

TI Organo-platinum compounds as antitumor agents, their preparation and formulation

IN Kurono, Masayasu; Unno, Ryoichi; Matsumoto, Yukiharu; Kondo, Yasuaki; Mitani, Takahiko; Jomori, Takahito; Michishita, Hisashi; Sawai, Kiichi

PA Sanwa Kagaku Kenkyusho Co., Ltd., Japan

SO Eur. Pat. Appl., 22 pp.

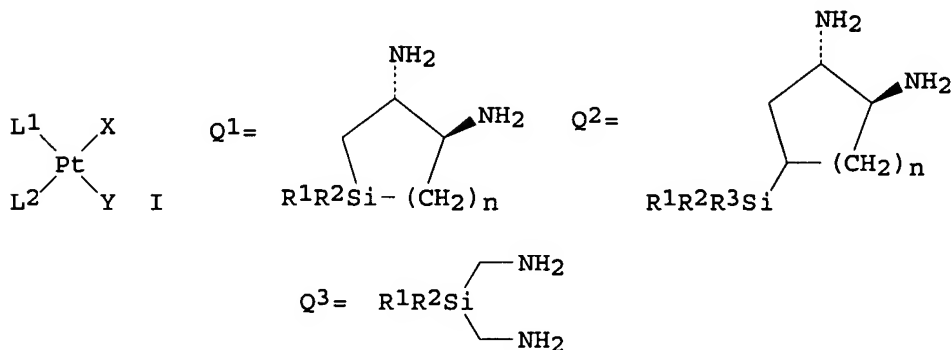
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 288002	A2	19881026	EP 1988-106214	19880419 <--
	EP 288002	A3	19900816		
	R: CH, DE, FR, GB, IT, LI				
	JP 63267794	A	19881104	JP 1987-98676	19870423 <--
	US 4870062	A	19890926	US 1988-183575	19880419 <--
PRAI	JP 1987-98676	A	19870423		
OS	MARPAT 110:75808				
GI					



AB The title compds. (I; X, Y = halo, carboxy, oxyanion; XY = dicarboxylate; L1L2 = Q1, Q2, Q3; R1, R2, R3 = alkyl, Ph; n = 0, 1) useful as neoplasm inhibitors, were prepared Potassium tetrachloroplatinate was added to trans-1,2-diamino-4,4-dimethyl-4-silacyclopentane (preparation given) in H<sub>2</sub>O and the mixture was stirred 18 h at 25° to give 94.6% cis-dichloro(trans-1,2-diamino-4,4-dimethyl-4-silacyclopentane) platinum (II). The latter at 15 mg/kg i.p. increased survival time of mice injected with L1210 leukemia by >301%. Capsules containing II 10, lactose 50, starch 50, crystalline cellulose 109, and Mg stearate 1 mg were prepared

L11 ANSWER 56 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:69389 CAPLUS

DN 110:69389

TI Antitumor cis-oxalate[4-(2-aminopropyl)morpholine]platinum (

II), its preparation, and pharmaceuticals containing it.  
IN Takamatsu, Masanori; Ikeda, Yoshiaki; Honda, Hisao  
PA Kanebo, Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 63063690	A	19880322	JP 1986-207465	19860902 <--
PRAI	JP 1986-207465		19860902		

GI For diagram(s), see printed CA Issue.

AB The novel Pt complex (I) is a neoplasm inhibitor. I (200 mg/kg, i.p.) administered to Leukemia P388-bearing mice prolonged the survival time by 98%. For I preparation, cis-dichloro[4-(2-aminopropyl)morpholine] platinum (II) were reacted with AgNO<sub>3</sub> and then with di-Na oxalate.

L11 ANSWER 57 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1988:603718 CAPLUS

DN 109:203718

TI Synthesis and characterization of diastereomeric (substituted iminodiacetato)(1,2-diaminocyclohexane)platinum(II) complexes

AU Hoeschelè, James D.; Farrell, N.; Turner, W. R.; Rithner, Christopher D.

CS Parke-Davis Pharm. Res. Div., Warner-Lambert Co., Ann Arbor, MI, 48105, USA

SO Inorganic Chemistry (1988), 27(23), 4106-13

CODEN: INOCAJ; ISSN: 0020-1669

DT Journal

LA English

AB [Pt(DACH)L] [DACH = (R,S)- and (R,R)-1,2-diaminocyclohexane; H<sub>2</sub>L = RN(CH<sub>2</sub>CO<sub>2</sub>H)<sub>2</sub>, R = Me, CH<sub>2</sub>CH<sub>2</sub>OH, CH<sub>2</sub>Ph] were prepared, purified, and characterized by spectroscopic techniques (1H, 13C, and 195Pt NMR; fast-atom bombardment mass spectra; IR) and by the measurement of selected phys. properties (pH, pK<sub>a</sub>, conductivity, and mol. wts.). The data are consistent

with the formation of 2 diastereomeric complexes in unequal proportions in which L<sub>2</sub>- appears to be bonded as a pseudofacial tridentate chelate. One arm of the ligand forms a stable 5-membered-ring O,N-chelate while the other arm appears to be involved in ion-pair formation (zwitterion-like) involving the carboxylate anion and the formally pos. Pt(II) central metal atom. An antitumor-active impurity was present in predictably inactive bulk complexes of the type PtN<sub>3</sub>O. The need to characterize unequivocally and certify the purity of prospective antitumor complexes is emphasized.

L11 ANSWER 58 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1988:521599 CAPLUS

DN 109:121599

TI Preparation of ammine heterocyclyl platinum complexes as antitumor agents

IN Totani, Tetsushi; Aono, Katsutoshi; Adachi, Yasuko

PA Shionogi and Co., Ltd., Japan

SO Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 273315	A1	19880706	EP 1987-118819	19871218 <--
	EP 273315	B1	19920318		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 63264492	A	19881101	JP 1987-321977	19871218 <--

US 4902797	A	19900220	US 1987-135061	19871218 <--
AT 73814	T	19920415	AT 1987-118819	19871218 <--
ES 2032430	T3	19930216	ES 1987-118819	19871218 <--
CA 1327039	C	19940215	CA 1987-554853	19871218 <--
PRAI JP 1986-303529	A	19861218		
EP 1987-118819	A	19871218		

OS MARPAT 109:121599

GI For diagram(s), see printed CA Issue.

AB Title compds. I (R = alkyl, OH, carboxy, alkoxy, halo, oxo; m = 2-7; X, Y = Cl, NO<sub>3</sub>; XY = carboxylate) are prepared as antitumor agents. An aqueous solution

of (ammine)(piperidine)platinum (II) nitrate was ion-exchanged to give the corresponding hydroxide, which was treated with glycolic acid to give 20% (ammine)(piperidine)platinum glycolate, which proved quite effective against cisplatin-resistant L1210 leukemia.

L11 ANSWER 59 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1988:416087 CAPLUS

DN 109:16087

TI Platinum(II) complexes of N,N'-dicyclopentylethylenediamine

AU Puniyani, Sushil; Srivastava, T. S.

CS Dep. Chem., Indian Inst. Technol., Powai, 400 076, India

SO Indian Journal of Chemistry, Section A: Inorganic, Physical, Theoretical & Analytical (1987), 26A(12), 1015-18

CODEN: IJCADU; ISSN: 0376-4710

DT Journal

LA English

AB Eight [Pt(DCPEDA)X<sub>2</sub>] (DCPEDA = N,N'-dicyclopentylethylenediamine; X- = Cl-, Br-, I-, 0.5 C<sub>2</sub>O<sub>4</sub><sup>2-</sup> (oxalate), 0.5 malonate, 0.33 4-carboxyphthalate, 0.5 S<sub>2</sub>O<sub>3</sub><sup>2-</sup>, 0.5 SO<sub>4</sub><sup>2-</sup>) were prepared and characterized. The molar conductance and UV-visible spectral studies suggest them to be non-electrolytes and to have square-planar geometry. IR and <sup>1</sup>H NMR spectral studies were used to ascertain the mode of binding of the ligands to Pt.

L11 ANSWER 60 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1988:106469 CAPLUS

DN 108:106469

TI Preparation of carboxylato(diamine)platinum as neoplasm inhibitor

IN Honda, Narimitsu; Morikawa, Kazumi

PA Chugai Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 62226996	A	19871005	JP 1986-70093	19860328 <--
PRAI	JP 1986-70093		19860328		

AB Dicarboxylic acid derivs. and platinates are dissolved in water, adjusted to pH 3-7, and reacted at 0-100° in the presence of diamines to produce carboxylato(diamine)platinum. NaOH (1.80 g) in 200 mL water was mixed with Pt (II) K chloride (4.15 g) and 1,1-cyclobutanedicarboxylic acid (4.32 g) and stirred with (R)-2-aminomethylpyrrolidine (1.0 g) to give 3.15 g (R)-1,1-cyclobutanedicarboxylato(2-aminomethylpyrrolidine)platinum (II) m. 248-257°.

L11 ANSWER 61 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:627844 CAPLUS

DN 107:227844

TI Synthesis and spectroscopic studies of platinum(II) complexes of N,N'-dicyclohexylethylenediamine



AU Puniyani, Sushil; Srivastava, T. S.  
 CS Dep. Chem., Indian Inst. Technol., Bombay, 400 076, India  
 SO Inorganica Chimica Acta (1987), 131(1), 95-9  
 CODEN: ICHAA3; ISSN: 0020-1693  
 DT Journal  
 LA English  
 AB [Pt(DCHEDA)X<sub>2</sub>] (DCHEDA = N,N'-dicyclohexylethylenediamine; X = Cl-, Br-, I-, 0.5C<sub>2</sub>O<sub>4</sub><sup>2-</sup>, 0.5 malonate, 0.5 4-carboxyphthalate, 0.5S<sub>2</sub>O<sub>3</sub><sup>2-</sup> or 0.5SO<sub>4</sub><sup>2-</sup>) were prepared and characterized by UV-visible, IR, and <sup>1</sup>H NMR spectral techniques. All the complexes are non-electrolytes in DMF/H<sub>2</sub>O, except the sulfate complex which becomes a 1:1 electrolyte after incubation for 24 h at 28°. The halide complexes were also studied by XPS and these data suggest that there is  $\pi$ -bonding from Pt to halide. The oxalate, malonate and sulfate bind as bidentate ligands to Pt through 2 O atoms whereas the S<sub>2</sub>O<sub>3</sub><sup>2-</sup> binds as a bidentate ligand to Pt through 1 O atom and 1 S atom.

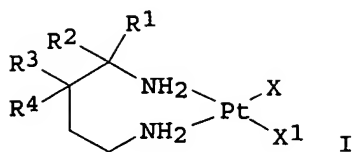
L11 ANSWER 62 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1987:525930 CAPLUS  
 DN 107:125930  
 TI Platinum complexes and their use as antitumor agents  
 IN Nowatari, Hiroyoshi; Hayami, Hiroshi; Kuroda, Yasuo; Yoda, Sumio;  
 Takahashi, Katsutoshi  
 PA Nippon Kayaku Co., Ltd., Japan  
 SO Eur. Pat. Appl., 31 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 1

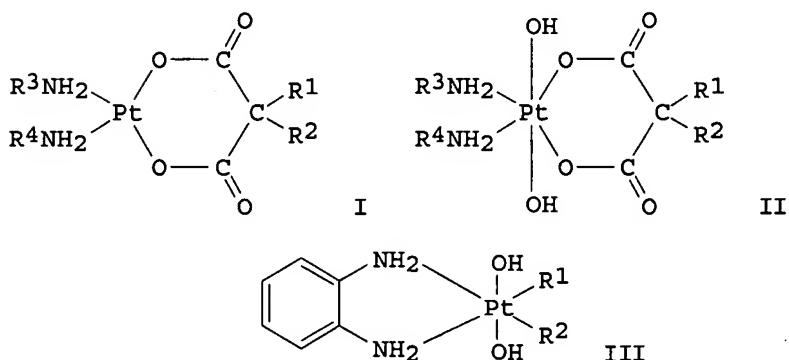
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 219936	A1	19870429	EP 1986-306162	19860808 <--
	EP 219936	B1	19891213		
	R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
	JP 63045290	A	19880226	JP 1986-152635	19860701 <--
	JP 05023276	B	19930402		
	US 4737589	A	19880412	US 1986-893108	19860804 <--
	CA 1258865	A1	19890829	CA 1986-515594	19860808 <--
	ZA 8606376	A	19870429	ZA 1986-6376	19860822 <--
	IL 79819	A	19901105	IL 1986-79819	19860824 <--
	AU 8661801	A	19870305	AU 1986-61801	19860825 <--
	AU 595827	B2	19900412		
	DK 8604059	A	19870228	DK 1986-4059	19860826 <--
	CN 86105441	A	19870311	CN 1986-105441	19860826 <--
	CN 1010314	B	19901107		
	JP 63045291	A	19880226	JP 1986-198139	19860826 <--
	HU 44266	A2	19880229	HU 1986-3688	19860826 <--
	HU 198302	B	19890928		
	ES 2001586	A6	19880601	ES 1986-1351	19860826 <--
	CS 273618	B2	19910312	CS 1986-6229	19860827 <--
	US 4864043	A	19890905	US 1987-87045	19870819 <--
	US 4921984	A	19900501	US 1989-372248	19890627 <--
	US 5068376	A	19911126	US 1990-464671	19900110 <--
	JP 05345792	A	19931227	JP 1992-291914	19921007 <--
PRAI	JP 1985-187710	A	19850827		
	JP 1986-26799	A	19860212		
	JP 1986-26800	A	19860212		
	JP 1986-94626	A	19860425		
	JP 1986-152635	A	19860701		
	US 1986-893108	A1	19860804		
	US 1987-87045	A3	19870819		
	US 1989-372248	A3	19890627		

GI



AB Pt diamine complexes I [R1-R4 = H, alkyl; X, X1 = halo; XX1 = O2CCO2, O2CCR5R6CO2; R5, R6 = H, alkyl; R5R6 = (CH2)3, (CH2)mO(CH2)m; m = 1, 2] are prepared and are useful as antitumor agents. They are more soluble than cisplatin, have lower renal toxicity, and are less likely to cause vomiting. R-3-Methyladipic acid was treated with NaN3 in benzene/H2SO4 to give R-2-methyl-1,4-butanediimine (I). K2PtCl4 was treated with KI to give K2PtI4, which sequentially reacted with I and cyclobutane-1,1-dicarboxylic acid to give cis(cyclobutane-1,1-dicarboxylato)(R-2-methyl-1,4-butanediimine)platinum (II) in 24.6% yield from K2PtCl4. II had high aqueous solubility, and very low renal toxicity. II was effective against various tumors and leukemia in mice.

L11 ANSWER 63 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1987:470238 CAPLUS  
 DN 107:70238  
 TI Synthesis of new antitumor platinum(II) and (IV) complexes  
 AU Liu, Shuang; Lai, Gaifa; Wang, Huicai  
 CS Dep. Pharm., Shandong Med. Univ., Jinan, Peop. Rep. China  
 SO Yaoxue Xuebao (1987), 22(1), 56-61  
 CODEN: YHHPAL; ISSN: 0513-4870  
 DT Journal  
 LA Chinese  
 GI



AB Twenty-three analogs of cisplatin (I and II; R1, R2 = H, Me, Et, or cyclic alkyl group; R3 = R4 = H; R3R4 = CH2CH2CH2, CH2CH2, and III, R1,R2 = Cl, Br, I) were synthesized. In mice transplanted with sarcoma 180, 7 new Pt complexes had antitumor activity with less toxicity than the parent compds. THUS, it is favorable to introduce certain hydrophilic groups into the Pt complexes to increase their aqueous solubility and decrease their toxicity while retaining their antitumor effects.

L11 ANSWER 64 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1987:148350 CAPLUS  
 DN 106:148350

TI Preparation and substitution reactions of (diphosphine)platinum(II) carboxylate complexes  
 AU Anderson, Gordon K.; Lumetta, Gregg J.  
 CS Dep. Chem., Univ. Missouri, St. Louis, MO, 63121, USA  
 SO Inorganic Chemistry (1987), 26(8), 1291-5  
 CODEN: INOCAJ; ISSN: 0020-1669  
 DT Journal  
 LA English  
 AB [Pt(OBz)<sub>2</sub>(dppe)] (dppe = Ph<sub>2</sub>PCH<sub>2</sub>CH<sub>2</sub>PPh<sub>2</sub>), [Pt(mal)(dppe)] (H<sub>2</sub>mal = malonic acid), and [Pt(mal)(dppm)] (dppm = (Ph<sub>2</sub>P)<sub>2</sub>CH<sub>2</sub>) are prepared by treatment of [PtCl<sub>2</sub>(dppe)] or [PtCl<sub>2</sub>(dppm)] with AgOBz or Ag<sub>2</sub>(mal). [Pt(OBz)<sub>2</sub>(dppe)] reacts with PBu<sub>3</sub> to yield [Pt(OBz)(PBu<sub>3</sub>)(dppe)]<sup>+</sup>, which subsequently reacts with chlorinated solvents to produce [PtCl(PBu<sub>3</sub>)(dppe)]<sup>+</sup>. Analogously, [Pt(mal)(dppe)] gives [PtCl(L)(dppe)]<sup>+</sup> when treated with L (L = PBu<sub>3</sub>, PEt<sub>3</sub>, or PMePh<sub>2</sub>). For L = PBu<sub>3</sub> the intermediate [Pt<sup>+</sup>(O<sub>2</sub>CCH<sub>2</sub>CO<sub>2</sub><sup>-</sup>)(PBu<sub>3</sub>)(dppe)] is observed spectroscopically at low temperature and may be protonated with HClO<sub>4</sub>. The ease of substitution of dicarboxylate or diphosphine ligands was studied by allowing [PtL<sub>1</sub>L<sub>2</sub>] (H<sub>2</sub>L<sub>1</sub> = oxalic and malonic acids; L<sub>2</sub> = dppe, dppm) to react with PBu<sub>3</sub>. [Pt(mal)(dppm)] reacts with 2 molar equiv of PBu<sub>3</sub> or PMePh<sub>2</sub> to give ion-paired [PtL<sub>2</sub>(dppm)][mal].

L11 ANSWER 65 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:138635 CAPLUS

DN 106:138635

TI (1-Benzylethylenediamine) platinum(II) complexes as antitumor agents

IN Brunner, Henri; Schoenenberger, Helmut; Schmidt, Manfred; Holzinger, Ulrich; Unger, Gerfried; Engel, Juergen

PA Asta-Werke A.-G., Fed. Rep. Ger.

SO Ger. Offen., 65 pp.

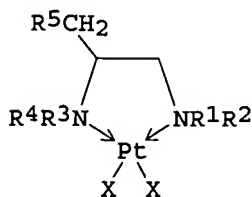
CODEN: GWXXBX

DT Patent

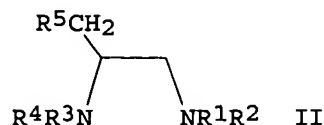
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3605191	A1	19860828	DE 1986-3605191	19860218 <--
	ZA 8600704	A	19861029	ZA 1986-704	19860130 <--
	AU 8653638	A	19860904	AU 1986-53638	19860217 <--
	EP 193083	A1	19860903	EP 1986-102092	19860218 <--
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	FI 8600731	A	19860824	FI 1986-731	19860219 <--
	NO 8600626	A	19860825	NO 1986-626	19860219 <--
	DD 253625	A5	19880127	DD 1986-287196	19860220 <--
	DK 8600826	A	19860824	DK 1986-826	19860221 <--
	HU 40452	A2	19861228	HU 1986-739	19860221 <--
	HU 195830	B	19880728		
	US 4704464	A	19871103	US 1986-831911	19860221 <--
	CA 1268182	A1	19900424	CA 1986-502459	19860221 <--
	JP 61194093	A	19860828	JP 1986-37537	19860224 <--
PRAI	DE 1985-3506468	A1	19850223		
OS	CASREACT 106:138635; MARPAT 106:138635				
GI					



I



II

AB The title compds. I [R1-4 = H, C1-6 alkyl, PhCH<sub>2</sub>, phenylethyl; R5 = thienyl, indolyl, imidazolyl, (substituted) Ph; X = pharmaceutically acceptable anion], useful as antitumor agents, are prepared by complexation of II by Pt compds. Thus, 1 mmol K<sub>2</sub>PtCl<sub>4</sub> in H<sub>2</sub>O was treated with 1 mmol II (R1-4 = H, R5 = Ph) at 50° and pH 6 in a flask protected from light to give I (R1-4 = H, R5 = Ph, X = Cl) (III). I were effective against P 388 leukemia, e.g. at 100-200 mg/kg orally in mice. Tablets (100 mg) were formulated from lactose 300, corn starch 130, Mg stearate 10, and III 200 g.

L11 ANSWER 66 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:12313 CAPLUS

DN 106:12313

TI Antitumor activity of platinum(II) complexes containing diaminocarboxylates and their ester derivatives

AU Noji, Masahide; Hanamura, Shingo; Suzuki, Kenjiro; Tashiro, Tazuko; Kidani, Yoshinori

CS Fac. Pharm. Sci., Nagoya City Univ., Nagoya, 467, Japan

SO Chemical & Pharmaceutical Bulletin (1986), 34(6), 2487-93

CODEN: CPBTAL; ISSN: 0009-2363

DT Journal

LA English

AB Antitumor Pt(II) complexes containing ester derivs. of DL-2,3-diaminopropionate and DL-2,4-diaminobutyrate were synthesized and their structures were determined from their IR and UV absorption spectral data. The antitumor activity of these Pt(II) complexes was tested in vivo against leukemia L1210. Pt(malonato)(DL-2,3-diaminopropionate Et ester) [105132-42-1] exhibited the highest antitumor effect with a treated/control value of 364% at an administration dose of 100 mg. The partition coeffs. between water and octanol were measured, but no clear correlation with antitumor effects was found. Some structure-activity relations are presented.

L11 ANSWER 67 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:264 CAPLUS

DN 106:264

TI Synthesis of new ethylenediamine-platinum(II) complexes starting from amino acids and their antitumor activity

AU Brunner, Henri; Kroiss, Reinhard; Schmidt, Manfred; Schoenenberger, Helmut

CS Inst. Anorg. Chem., Univ. Regensburg, Regensburg, D-8400, Fed. Rep. Ger.

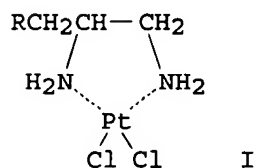
SO European Journal of Medicinal Chemistry (1986), 21(4), 333-8

CODEN: EJMCA5; ISSN: 0223-5234

DT Journal

LA English

GI



AB Amino acids, obtained by azlactone or hydantoin synthesis were converted to ethylenediamines RCH<sub>2</sub>CH(NH<sub>2</sub>)CH<sub>2</sub>NH<sub>2</sub> via esters, amides, and LiAlH<sub>4</sub> reduction Pt complexes I were prepared from these diamines and tested for antitumor activity with the hormone independent human mammary carcinoma cell line MDA-MB 231 along with I complexes with Cl ligands replaced by a series of monodentate and bidentate anions. All compds. tested had high antitumor activity in the inhibition of cell proliferation and 3H-thymidine

incorporation tests. Chloro-substituted Ph I derivs. were the most active substances. Replacement of chloro ligands in DL-I (R = Ph) [104975-44-2] by, other leaving groups led to complexes exhibiting higher or lower activity with PhCH<sub>2</sub>CH(NH<sub>2</sub>)CH<sub>2</sub>NH<sub>2</sub>.Pt (H<sub>2</sub>O)<sub>2</sub>(NO<sub>3</sub>)<sub>2</sub> having the most activity. Of the bidentate ligand-containing compds. PhCH<sub>2</sub>CH(NH<sub>2</sub>)CH<sub>2</sub>NH<sub>2</sub>.Pt.malonate was the most active.

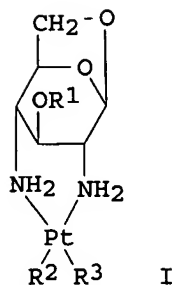
L11 ANSWER 68 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1986:637311 CAPLUS  
 DN 105:237311  
 TI Reactions of platinum(II) carboxylate complexes with tertiary phosphines and chlorinated solvents  
 AU Anderson, Gordon K.; Lumetta, Gregg J.  
 CS Dep. Chem., Univ. Missouri, St. Louis, MO, 63121, USA  
 SO Inorganica Chimica Acta (1986), 118(1), L9-L10  
 CODEN: ICHAA3; ISSN: 0020-1693  
 DT Journal  
 LA English  
 AB Reaction of Pt(OBz)<sub>2</sub>(dppe) (dppe = Ph<sub>2</sub>PCH<sub>2</sub>CH<sub>2</sub>PPh<sub>2</sub>) in CH<sub>2</sub>Cl<sub>2</sub> or C<sub>6</sub>H<sub>5</sub>CH<sub>2</sub>Cl with PBu<sub>3</sub> gave initially [Pt(OBz)(PBu<sub>3</sub>)(dppe)]<sup>+</sup> and eventually [PtCl(PBu<sub>3</sub>)(dppe)]<sup>+</sup> (I). The same reaction in CH<sub>3</sub>CN gave only [Pt(OBz)(PBu<sub>3</sub>)(dppe)]<sup>+</sup>. Reaction of Pt(mal)(dppe) (II; H<sub>2</sub>mal = malonic acid) in CH<sub>2</sub>Cl<sub>2</sub> with L (L = PBu<sub>3</sub>, PEt<sub>3</sub>, PMePh<sub>2</sub>) gave rapidly [PtClL(dppe)]<sup>+</sup>. Reaction of II in CDCl<sub>3</sub> at -60° with PBu<sub>3</sub> gave Pt(mal)(PBu<sub>3</sub>)(dppe) which on warming to ambient temperature was converted to I. No reaction was observed between II and PPh<sub>3</sub>, AsPh<sub>3</sub> and SbPh<sub>3</sub> whereas with NEt<sub>3</sub>, PtCl<sub>2</sub>(dppe) was formed slowly. Pt(C<sub>2</sub>O<sub>4</sub>)(dppe) in CDCl<sub>3</sub> or CH<sub>2</sub>Cl<sub>2</sub> and PBu<sub>3</sub> gave I, a significant amount of Pt(C<sub>2</sub>O<sub>4</sub>)(PBu<sub>3</sub>)<sub>2</sub> and other species. Pt(C<sub>2</sub>O<sub>4</sub>)(dppm) (dppm = (Ph<sub>2</sub>P)<sub>2</sub>CH<sub>2</sub>) reacted with L<sub>1</sub> (L<sub>1</sub> = PBu<sub>3</sub>, PEt<sub>3</sub>) in CDCl<sub>3</sub> to give Pt(C<sub>2</sub>O<sub>4</sub>)L<sub>1</sub><sub>2</sub>. Pt(mal)(dppm) in CDCl<sub>3</sub> at -40° reacted with PBu<sub>3</sub> (1:1 ratio) to give [Pt(PBu<sub>3</sub>)<sub>2</sub>(dppm)]<sub>2</sub><sup>+</sup> and on warming to room temperature gave Pt(mal)(PBu<sub>3</sub>)<sub>2</sub> and [PtCl(PBu<sub>3</sub>)(dppm)]<sup>+</sup>. In a 1:2 ratio only [Pt(PBu<sub>3</sub>)<sub>2</sub>(dppm)]<sub>2</sub><sup>+</sup> and Pt(mal)(PBu<sub>3</sub>)<sub>2</sub> were formed. The reactions of Pt(mal)(dppm) with PEt<sub>3</sub> were similar but with PMePh<sub>2</sub>, [PtCl(PMePh<sub>2</sub>)<sub>3</sub>]<sup>+</sup> was also formed. [PtCl(PMePh<sub>2</sub>)(dppm)]<sup>+</sup>, obtained from PtCl<sub>2</sub>(dppm) and PMePh<sub>2</sub>, is fluxional at room temperature but not at -40° and reacted with PMePh<sub>2</sub> to give [Pt(PMePh<sub>2</sub>)(dppm)]<sup>+</sup> observable at low temperature All the reaction products were detected by <sup>31</sup>P{<sup>1</sup>H} NMR.

L11 ANSWER 69 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1986:609336 CAPLUS  
 DN 105:209336  
 TI Platinum(II) complexes with diamino sugars and their pharmaceutical compositions  
 IN Kolar, Cenek; Kraemer, Hans Peter; Dehmelt, Konrad  
 PA Behringwerke A.-G., Fed. Rep. Ger.  
 SO Eur. Pat. Appl., 26 pp.  
 CODEN: EPXXDW

DT Patent  
 LA German

FAN.CNT 1

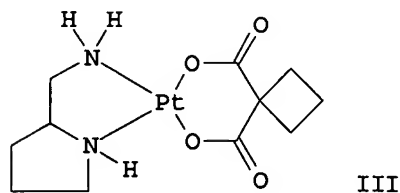
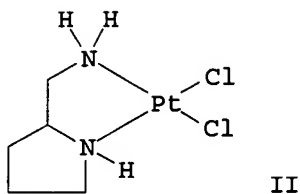
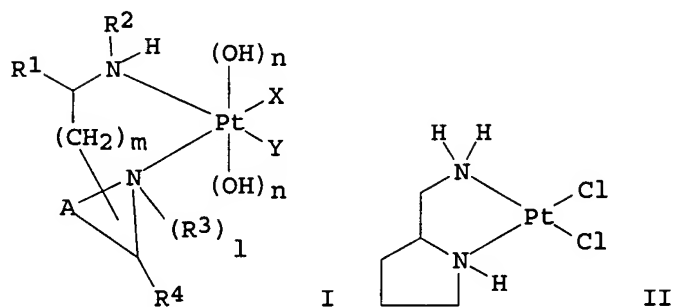
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 167071	A2	19860108	EP 1985-107673	19850621 <--
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	DE 3424217	A1	19860123	DE 1984-3424217	19840630 <--
	JP 61018797	A	19860127	JP 1985-140705	19850628 <--
	ES 544679	A1	19860201	ES 1985-544679	19850628 <--
	ZA 8504905	A	19860226	ZA 1985-4905	19850628 <--
	AT 390065	B	19900312	AT 1987-2631	19871008 <--
	AT 8702631	A	19890815		
PRAI	DE 1984-3424217	A	19840630		
OS	CASREACT 105:209336; MARPAT 105:209336				
GI					



- AB The title compds. (I; R1 = H, alkyl, protective group; R2, R3 = Br-, Cl-, iodide, OH-, NO3-, AcO-, F3CCO2-, MeSO3-, MeC6H4SO3-, ClO4-; R2 = SO4-2, CO3-2, R3 = H2O; R2R3 = dianion from an organic diacid or a repeating anionic groups of a polymer, e.g., dextran, polyitaconic acid) were prepared as cytotoxic agents. Thus, 1,6-anhydro-2,4-diazido-2,4-dideoxy- $\beta$ -D-glucopyranose was O-methylated, the product was hydrogenated over Pd/C to give a diamino sugar, and the latter was treated with K2PtCl4 to give I (R1 = Me, R2 = R3 = Cl-) (II). II inhibited the growth of mouse leukemia L1210 cells in vitro with an IC50 22% that of cisplatin.
- L11 ANSWER 70 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1986:545769 CAPLUS  
 DN 105:145769  
 TI Studies of synthesis, structure, and antitumor activity of platinum(II) complexes containing 1,2-diamino-1,2-dideoxy-D-glucitol  
 AU Noji, Masahide; Chisaki, Keigo; Hirose, Junzo; Kato, Taiji; Kidani, Yoshinori  
 CS Fac. Pharm. Sci., Nagoya City Univ., Nagoya, 467, Japan  
 SO Chemical & Pharmaceutical Bulletin (1986), 34(6), 2321-9  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DT Journal  
 LA English  
 AB Seven new water-soluble antitumor Pt(II) complexes were prepared by introducing OH groups into a carrier ligand, 1,2-diamino-1,2-dideoxy-D-glucitol (1,2-DAG), and their structures were determined by <sup>13</sup>C NMR and circular dichroism spectral analyses. Only [Pt(NO3)2(1,2-DAG)] [104556-54-9] and [Pt(SO4)(1,2-DAG)] [104538-11-6] exhibited marginal effects against leukemia L121 in vivo, among compds. with various leaving groups. In vitro, the Pt(II) complexes of 1,2-DAG showed the same binding mode with calf-thymus DNA as cis-diamminedichloroplatinum(II), but inhibition of DNA synthesis in L1210 cells was not observed even at the concentration of 100  $\mu$ M, [PtCl2(1,2-DAG)] [104538-12-7] or [Pt(oxalato)(1,2-DAG)] [104538-13-8]. Examination of the Pt content taken into the cells indicates that the Pt(II) complexes have difficulty in passing through the cell membranes, which might account for the low antitumor effects observed in vivo.
- L11 ANSWER 71 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1986:497698 CAPLUS  
 DN 105:97698  
 TI Platinum complexes  
 IN Honda, Masamitsu; Morikawa, Kazumi; Endoh, Kohichi  
 PA Chugai Pharmaceutical Co., Ltd., Japan  
 SO Eur. Pat. Appl., 25 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 176005	A1	19860402	EP 1985-111497	19850911 <--
	EP 176005	B1	19910116		
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
	JP 61076495	A	19860418	JP 1984-189655	19840912 <--
	JP 61076496	A	19860418	JP 1984-189656	19840912 <--
	JP 61076497	A	19860418	JP 1984-189657	19840912 <--
	JP 02047998	B	19901023		
	JP 61148187	A	19860705	JP 1984-271411	19841222 <--
	CA 1256115	A1	19890620	CA 1985-489925	19850903 <--
	ZA 8506889	A	19860528	ZA 1985-6889	19850909 <--
	HU 38365	A2	19860528	HU 1985-3419	19850910 <--
	HU 193809	B	19871228		
	SU 1570649	A3	19900607	SU 1985-3955959	19850911 <--
	AT 60059	T	19910215	AT 1985-111497	19850911 <--
	CN 85107559	A	19860610	CN 1985-107559	19851015 <--
	CN 1005337	B	19891004		
	JP 61267595	A	19861127	JP 1986-11461	19860122 <--
	JP 05069113	B	19930930		
	JP 62030792	A	19870209	JP 1986-94739	19860425 <--
	JP 05078560	B	19931029		
	JP 62129289	A	19870611	JP 1986-178741	19860731 <--
	US 4822892	A	19890418	US 1988-165404	19880224 <--
PRAI	JP 1984-189655	A	19840912		
	JP 1984-189656	A	19840912		
	JP 1984-189657	A	19840912		
	JP 1984-271411	A	19841222		
	JP 1985-8383	A	19850122		
	JP 1985-87615	A	19850425		
	JP 1985-87616	A	19850425		
	JP 1985-168559	A	19850801		
	JP 1985-168560	A	19850801		
	US 1985-770671	A1	19850829		
	EP 1985-111497	A	19850911		
OS	CASREACT 105:97698; MARPAT 105:97698				
GI					



AB Twenty-seven Pt-cyclic diamine complexes I (A = C1-3 alkylene; R1-R4 = H, alkyl; X, Y = halo; XY = oxalate, 1,1-cyclobutanedicarboxylate; l, m, n =

0, 1) were prepared as antitumor agents with low toxicity and high water solubility. Thus,  $K_2PtCl_4$  reacted with 2-(aminomethyl)pyrrolidine in water to give 82% dichloro(aminomethylpyrrolidine)platinum(II) complex II. Treatment of II with aqueous  $AgNO_3$  and di-Na 1,1-cyclobutanedicarboxylate gave, after recrystn., 45% Pt complex III. III in mice (i.p.) gave 97% growth inhibition against Colon 26 carcinoma implants at 120 mg/kg (lethal at 160 mg/kg), vs. 79% inhibition at 12 mg/kg (lethal at 16 mg/kg) for cisplatin. A mixture containing III 50, lactose 96, crystalline cellulose 27, corn starch 5, and Mg stearate 2 g was compressed to give 180-mg tablets.

L11 ANSWER 72 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1986:95451 CAPLUS

DN 104:95451

TI Organoplatinum complex preparation as neoplasm inhibitors

IN Tsujiyama, Kenji; Morikawa, Tamio; Takeda, Mikio; Arai, Yoshihisa

PA Tanabe Seiyaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

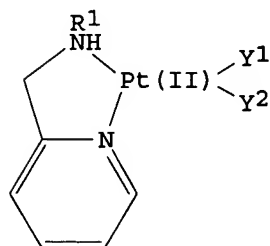
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60184015	A	19850919	JP 1984-41043	19840302 <--
PRAI	JP 1984-41043		19840302		
GI					



I

AB Organoplatinum complexes I ( $R_1 = H, Me$ ;  $Y_1, Y_2 = \text{halogen}, NO_3, R_2CO_2$ ;  $Y_1Y_2 = SO_4, OCO(CHOH)_m(CHR_3)_nCO_2$ ;  $R_2 = \text{hydroxy-substituted alkyl, carbamoyl, acetyl}$ ;  $R_3 = H, \text{alkyl}$ ;  $m, n = 0-2$ ;  $0 \leq m + n \leq 2$ . Thus, 1.2 g 2-(aminomethyl)pyridine was added to 50 mL  $H_2O$  containing 4.15 g K chloroplatinate, and the crystals formed were filtered, washed with  $H_2O$  and dried to give 3.19 g cis-dichloro(2-aminomethylpyridine)platinum(II). The antitumor activity of the product against leukemia L-1210 cells was shown in mice.

L11 ANSWER 73 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1986:27835 CAPLUS

DN 104:27835

TI Aspects of the stereospecific synthesis of biologically active platinum(II) complexes

AU Kuduk-Jaworska, Janina

CS Inst. Chem., Univ. Wroclaw, Wroclaw, Pol.

SO Proc. - Sch.-Symp. Inorg. Biochem. Mol. Biophys. (1985), 182-4

Publisher: Wydawn. Univ. Wroclawskiego, Wroclaw, Pol.

CODEN: 54HGAA

DT Conference

LA English

AB The preparation of  $PtL_2X_2$  ( $L = 1\text{-ethylimidazole, 1-propylimidazole}$ ;  $X = Cl, Br, I, 0.5 \text{ oxalate}$ ) from  $PtX_4^{2-}$  and  $L$  proceed stereospecifically to cis



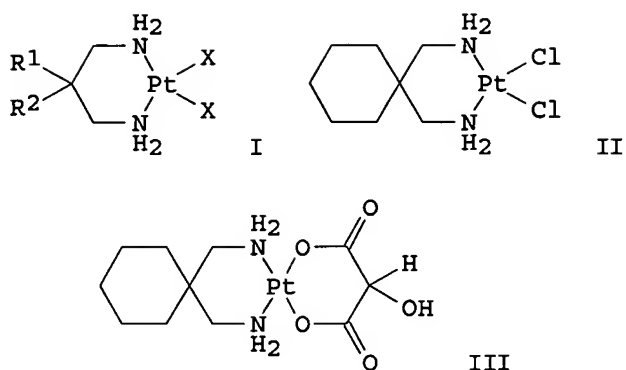
isomers; no solvent effect was observed For 4-vinylpyridine and gentianine, a mixture of cis and trans isomers were formed in DMF. p-Methoxybenzylidene-N-1,3,4,6-tetra-O-acetyl-D-glucosamine reacted with PtCl<sub>4</sub><sup>2-</sup> to give KPtLCl<sub>3</sub> and trans-PtL<sub>2</sub>Cl<sub>2</sub> (L = tetra-O-acetyl-D-glucosamine).

- L11 ANSWER 74 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1985:552569 CAPLUS  
DN 103:152569  
TI Synthesis and characterization of platinum(II) and platinum(IV) complexes of amantadine and their antitumor activity against L-1210 in BDF/2  
AU Tang, Wenxia; Qu, Yun; Tai, Anpang; Ji, Xiujuan; Zhang, Furong; Liu, Li  
CS Nanjing Univ., Nanjing, Peop. Rep. China  
SO Nanjing Daxue Xuebao, Ziran Kexue (1984), (3), 471-8  
CODEN: NCHPAZ; ISSN: 0469-5097  
DT Journal  
LA Chinese  
AB cis-PtA<sub>2</sub>X<sub>2</sub> (A = amantadine; X = Cl, Br, I), cis-PtA<sub>2</sub>Z (H<sub>2</sub>Z = malonic, oxalic, chloroacetic acid), cis-[PtA<sub>2</sub>(SO<sub>4</sub>)]·H<sub>2</sub>O, PtA<sub>2</sub>X<sub>2</sub>(OH)<sub>2</sub> (X = Cl, Br) and [PtA<sub>2</sub>(O<sub>2</sub>CCH<sub>2</sub>Cl)<sub>2</sub>(OH)<sub>2</sub>]·H<sub>2</sub>O were prepared and characterized. The antitumor activity of the prepared complexes against L-1210 in BDA/2 mice and the solubility in H<sub>2</sub>O and in EtOAc were determined  
[PtA<sub>2</sub>(O<sub>2</sub>CCH<sub>2</sub>Cl)<sub>2</sub>(OH)<sub>2</sub>]·H<sub>2</sub>O had a higher activity. The relation between the activity of the complexes and their H<sub>2</sub>O and EtOAc solubility is discussed.
- L11 ANSWER 75 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1985:447222 CAPLUS  
DN 103:47222  
TI Platinum(II) complexes of cyclohexanone and cyclopentanone thiosemicarbazones  
AU Puniyani, Sushil; Bathla, Nee; Srivastava, T. S.  
CS Dep. Chem., Indian Inst. Technol., Bombay, 400 076, India  
SO Indian Journal of Chemistry, Section A: Inorganic, Physical, Theoretical & Analytical (1985), 24A(3), 240-1  
CODEN: IJCADU; ISSN: 0376-4710  
DT Journal  
LA English  
AB [PtLX<sub>2</sub>] (X = Cl, Br, I, 0.5 C<sub>2</sub>O<sub>4</sub><sup>2-</sup>; L = cyclohexanone thiosemicarbazone, cyclopentanone thiosemicarbazone) were prepared and characterized. The conductance data of the complexes in DMF suggest them to be nonelectrolytes. The IR spectra of the complexes suggest that the ligands are coordinated to Pt through 1 N and 1 S. The oxalate ion is also bidentate. The NH<sub>2</sub> protons in the PMR spectra of the ligands and the complexes are nonequivalent as a result of restricted rotation of C(S)-NH<sub>2</sub> bond.
- L11 ANSWER 76 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1985:196691 CAPLUS  
DN 102:196691  
TI Preparation and properties of TTF and TSF salts with planar platinum(II) and copper(II) oxalate anions  
AU Ueyama, Kosuke; Tanaka, Atsushi; Matsubayashi, Genetsu; Tanaka, Toshio  
CS Fac. Eng., Osaka Univ., Osaka, 565, Japan  
SO Inorganica Chimica Acta (1985), 97(2), 201-4  
CODEN: ICHAA3; ISSN: 0020-1693  
DT Journal  
LA English  
AB Tetrathiafulvalene (TTF) and tetraselenafulvalene (TSF) salts with [M(C<sub>2</sub>O<sub>4</sub>)<sub>2</sub>]<sup>2-</sup> (M = Cu, Pt) and [PtCl<sub>2</sub>(C<sub>2</sub>O<sub>4</sub>)]<sub>2</sub><sup>2-</sup> were prepared by the reaction of [TTF]<sub>3</sub>[BF<sub>4</sub>]<sub>2</sub> or [TSF]<sub>3</sub>[BF<sub>4</sub>]<sub>2</sub> with the oxalatometallates in CH<sub>3</sub>CN or DMSO. These salts contain TTF<sup>0</sup> or TSF<sup>0</sup> as well as the TTF<sup>•+</sup> or TSF<sup>•+</sup> radical cation. Electronic reflectance spectra of the salts show a band due to dimeric (TTF<sup>•+</sup>)<sub>2</sub> or (TSF<sup>•+</sup>)<sub>2</sub> at 13100-14000 or

10500-12300 cm<sup>-1</sup>, as well as a band due to a TTF<sup>•+</sup>/TTF<sup>0</sup> or TSF<sup>•+</sup>/TSF<sup>0</sup> charge transfer transition at 8600-8900 cm<sup>-1</sup>. X-ray photoelectron spectra of the TTF salts with oxalatoplatinates indicate the occurrence of some neg. charge transfer from the TTF moiety to the platinate anion. ESR suggest that the planar Cu(C<sub>2</sub>O<sub>4</sub>)<sup>2-</sup> anions in the TTF and TSF salts exist as a dimer. All the salts behave as semiconductors with the elec. resistivities of 10<sup>2</sup>-10<sup>4</sup> Ω cm as compacted samples at 25°.

L11 ANSWER 77 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1984:530292 CAPLUS  
 DN 101:130292  
 TI Platinum-containing compounds and their use in cancer treatment  
 IN Verbeek, Francois; Berg, Jan; Bulten, Eric Jan  
 PA Nederlandse Centrale Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek, Neth.  
 SO Ger. Offen., 38 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
	-----	----	-----	-----	-----	
PI	DE 3337333	A1	19840426	DE 1983-3337333	19831013	<--
	NL 8204067	A	19840516	NL 1982-4067	19821021	<--
	AU 8320275	A	19840503	AU 1983-20275	19831018	<--
	AU 562964	B2	19870625			
	CA 1229618	A1	19871124	CA 1983-439308	19831019	<--
	IL 70009	A	19880131	IL 1983-70009	19831019	<--
	DK 8304830	A	19840422	DK 1983-4830	19831020	<--
	FI 8303842	A	19840422	FI 1983-3842	19831020	<--
	FI 76351	B	19880630			
	FI 76351	C	19881010			
	SE 8305783	A	19840422	SE 1983-5783	19831020	<--
	NO 8303825	A	19840424	NO 1983-3825	19831020	<--
	NO 171276	B	19921109			
	FR 2534907	A1	19840427	FR 1983-16715	19831020	<--
	FR 2534907	B1	19880819			
	GB 2128615	A	19840502	GB 1983-28084	19831020	<--
	GB 2128615	B	19860716			
	HU 32613	A2	19840828	HU 1983-3623	19831020	<--
	HU 188035	B	19860328			
	DD 217522	A5	19850116	DD 1983-255826	19831020	<--
	CH 658244	A5	19861031	CH 1983-5718	19831020	<--
	AT 8303730	A	19891115	AT 1983-3730	19831020	<--
	AT 390610	B	19900611			
	BE 898058	A2	19840424	BE 1983-211755	19831021	<--
	JP 59093091	A	19840529	JP 1983-196286	19831021	<--
	JP 02044479	B	19901004			
	ZA 8307857	A	19840627	ZA 1983-7857	19831021	<--
	ES 526670	A1	19840701	ES 1983-526670	19831021	<--
	CS 242888	B2	19860515	CS 1983-7752	19831021	<--
	DK 9200755	A	19920609	DK 1992-755	19920609	<--
PRAI	NL 1982-4067	A	19821021			
	IL 1979-57717	A	19790704			
OS	MARPAT 101:130292					
GI						



AB Platinum (II) diamine complexes I ( $R_1, R_2 = Et$   $CR_1R_2 =$  cyclohexyl;  $X = ClCH_2CO_2, NO_3$ ;  $X-X =$  malonate, ethyl-, hydroxymalonate, carboxyphthalate, cyclobutane-1,1-dicarboxylate, oxalate, or Na salt of these groups), useful in treating cancer and tumors, were prepared. Thus, treating  $K_2PtCl_4$  with aqueous KI, heating and treating with 1,1-bis(aminomethyl)cyclohexane gave a diiodo derivative which was added to aqueous  $AgNO_3$  and stirred at  $95-100^\circ$  to give dichloride II. Successively treating II with aqueous  $AgNO_3$  and  $(HO_2C)_2CHOH$  in aqueous KOH gave 77% complex III. At 36.00 mg/kg III possessed a test/control activity ratio of 246 in mice against lymphoid L 1210 leukemia.

L11 ANSWER 78 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1984:150742 CAPLUS

DN 100:150742

TI Antitumor activity of platinum(II) complexes of 1,2-diaminocyclopentane isomers

AU Noji, Masahide; Goto, Masafumi; Kidani, Yoshinori

CS Fac. Pharm. Sci., Nagoya City Univ., Nagoya, 467, Japan

SO Journal of Clinical Hematology and Oncology (1984), 14(1), 9-16

CODEN: JCHODP; ISSN: 0162-9360

DT Journal

LA English

AB Pt(II) complexes of 1,2-diaminocyclopentane (daccp) optical isomers were synthesized and they showed relatively high antitumor activity against leukemia P388. The antitumor activity depended upon the optical isomers involved and it was noticed that Pt(II) complexes of 1R,2R-daccp exhibited higher activity than those of 1S,2S-isomer. The chelate ring conformations of Pt(II) complexes containing 1R,2R- and 1S,2S-isomers were estimated to be  $\lambda$ -gauche and  $\delta$ -gauche forms, resp., by analyzing their CD spectra.

L11 ANSWER 79 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1984:16715 CAPLUS

DN 100:16715

TI Synthesis of new platinum(II) complexes with o-phenylenediamine, o-aminophenol, ethanolamine and oxygen-donor ligands

AU Syamal, Arun; Gupta, Bhubnesh K.

CS Dep. Appl. Sci. Hum., Kurukshetra Univ., Kurukshetra, 132119, India

SO Transition Metal Chemistry (Dordrecht, Netherlands) (1983),

8(5), 280-2

CODEN: TMCHDN; ISSN: 0340-4285

DT Journal

LA English

AB [PtLL1] ( $L = o-(H_2N)_2C_6H_4, o-H_2NC_6H_4OH, H_2NCH_2CH_2OH, H_2L_1 = H_2C_2O_4$ , malonic acid, Me malonate, Et malonate) and [PtLL22] ( $HL_2 = HCO_2H, HOAc$ , glycine, crotonic acid) were prepared and characterized by elemental anal., elec. conductivity, magnetic susceptibility, and IR and electronic spectral methods. The complexes are nonelectrolytes, diamagnetic and square

planar.

L11 ANSWER 80 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1983:209058 CAPLUS

DN 98:209058

OREF 98:31615a,31618a

TI Synthesis of new platinum(II) complexes with ethanethiolamine, o-aminothiophenol and bidentate carboxylic acids

AU Syamal, A.; Gupta, B. K.

CS Dep. Appl. Sci. Hum., Kurukshetra Univ., Kurukshetra, 132119, India

SO Revue de Chimie Minerale (1983), 20(1), 123-8

CODEN: RVCMA8; ISSN: 0035-1032

DT Journal

LA English

AB PtLL1 (L = HSC2H4NH2, o-H2NC6H4SH, H2L1 = H2C2O4, methylmalonic acid, ethylmalonic acid, malonic acid) and PtLL22 (HL2 = HCO2H, HOAc, H2NCH2CO2H, crotonic acid) were prepared by addition of an aqueous solution of the

aliphatic acid or K2C2O4 to hot aqueous K2[PtCl4]. After pH adjustment to 8.5 with aqueous KOH, aqueous HSC2H4NH3Cl or ethanolic o-H2NC6H4SH was added.

Characterization by elemental anal., elec. conductivity, magnetic

susceptibility,

IR and electronic spectral methods revealed the NS chelating character of L and O-coordination of L1 and L2. The complexes are diamagnetic and nonelectrolytic.

L11 ANSWER 81 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1983:118467 CAPLUS

DN 98:118467

OREF 98:17873a,17876a

TI Platinum(II and IV) complexes with nitrogen-sulfur and nitrogen-oxygen donor ligands

AU Syamal, A.; Gupta, B. K.; Ahmed, S.

CS Dep. Appl. Sci. Hum., Kurukshetra Univ., Kurukshetra, 132 119, India

SO Current Science (1982), 51(24), 1153-5

CODEN: CUSCAM; ISSN: 0011-3891

DT Journal

LA English

AB [PtLL1] (L = 2-aminoethanol, 2-aminoethanethiol; H2L1 = oxalic or malonic acid), [PtLL22] (L2 = formate, OAc), trans-[PtX2LL1] (X = Cl, Br), and trans-[PtX2LL22] were prepared and characterized by elemental anal., elec. conductivity, IR spectral, and magnetic susceptibility data. The Pt(II) complexes underwent oxidative addition reactions to give the Pt(IV) complexes.

L11 ANSWER 82 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1983:82737 CAPLUS

DN 98:82737

OREF 98:12477a,12480a

TI New platinum complexes with expected antineoplastic activity

AU Kuduk-Jaworska, Janina; Jezowska-Trzebiatowska, Boguslawa

CS Inst. Chem., Univ. Wroclaw, Wroclaw, 50383, Pol.

SO Polish Journal of Chemistry (1981), 55(5), 1143-9

CODEN: PJCHDQ; ISSN: 0137-5083

DT Journal

LA English

AB Pt(NH3)2L (H2L = L-(+)-tartaric acid, L-(-)-malic acid), prepared from cis-Pt(NH3)2Cl2 and Ag2L, and PtQ2X2 (Q = 1-ethylimidazole; X = Cl, Br, I, 0.5C2O4) were prepared and characterized by elemental anal., IR spectral anal. and conductivity measurements. All 6 complexes are practically water-insol., nonelectrolytic (in DMF) cis-isomers.

L11 ANSWER 83 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1982:555280 CAPLUS

DN 97:155280  
 OREF 97:25695a,25698a  
 TI Metal complexes with biologically important ligands. XXI. Antitumor active cis-platinum(II) complexes with  $\alpha$ -amino acid esters and peptide esters. Structure of cis-dichlorobis(glycylglycine ethyl ester)platinum(II)  
 AU Beck, Wolfgang; Bissinger, Herbert; Girnth-Weller, Michael; Purucker, Bernhard; Thiel, Gerhard; Zippel, Horst; Seidenberger, Horst; Wappes, Beate; Schoenenberger, Helmut  
 CS Inst. Anorg. Chem., Univ. Muenchen, Munich, D-8000/2, Fed. Rep. Ger.  
 SO Chemische Berichte (1982), 115(6), 2256-70  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DT Journal  
 LA German  
 AB cis-PtX<sub>2</sub>L<sub>2</sub> (X = Cl, Br, I; L =  $\alpha$ -amino acid ester, peptide ester) and cis-PtZL<sub>2</sub> (H<sub>2</sub>Z = oxalic acid, malonic acid) were prepared from PtX<sub>4</sub><sup>2-</sup> or PtZ<sub>2</sub><sup>2-</sup> and L. The dipeptide complexes were also prepared via peptide synthesis from PtCl<sub>2</sub>(NH<sub>2</sub>CHRCO<sub>2</sub>H)<sub>2</sub> and  $\alpha$ -amino acid esters using carbodiimide as the coupling agent. PtCl<sub>2</sub>L<sub>2</sub> (L =  $\alpha$ -amino acid ester) were prepared from cis-Pt(NH<sub>2</sub>CHRCO)<sub>2</sub> and alc. in the presence of HCl. cis-PtCl(GlyGlyOET)<sub>2</sub> is triclinic, space group P<sub>2</sub><sub>1</sub>h<sub>1</sub>1, with a 887.2(2), b 928.2(3), c 1421.2(5) pm,  $\alpha$  78.01(3),  $\beta$  82.58(3),  $\gamma$  60.24(2)°, Z = 2, d. (x-ray) = 1.96.

L11 ANSWER 84 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1982:227998 CAPLUS  
 DN 96:227998  
 OREF 96:37553a,37556a  
 TI Coordination compounds of platinum(II) with 1-vinylimidazole  
 AU Shchelokov, R. N.; Muraveiskaya, G. S.; Voropaev, V. N.; Skvortsova, G. G.; Domnina, E. S.  
 CS Inst. Obshch. Neorg. Khim. im. Kurnakov, Moscow, USSR  
 SO Koordinatsionnaya Khimiya (1982), 8(4), 513-17  
 CODEN: KOKHDC; ISSN: 0132-344X  
 DT Journal  
 LA Russian  
 AB K<sub>2</sub>PtX<sub>4</sub> (X = Cl, Br, I) react with 1-vinylimidazole (L) in aqueous solution to give cis-PtL<sub>2</sub>X<sub>2</sub> which react with L to give [PtL<sub>4</sub>]X<sub>2</sub>. Treatment of [PtL<sub>4</sub>]X<sub>2</sub> with R<sub>4</sub>NX (R = alkyl) in DMF gave trans-PtL<sub>2</sub>X<sub>2</sub>. Treatment of cis-PtL<sub>2</sub>X<sub>2</sub> with AgNO<sub>3</sub> gave PtL<sub>2</sub>X<sub>2</sub>. (AgNO<sub>3</sub>)<sub>2</sub> (X = Cl, I) or with Na<sub>2</sub>C<sub>2</sub>O<sub>4</sub> gave PtL<sub>2</sub>(C<sub>2</sub>O<sub>4</sub>). Treatment of [PtL<sub>4</sub>]Cl<sub>2</sub> with PtCl<sub>4</sub><sup>2-</sup> gave [PtL<sub>4</sub>][PtCl<sub>4</sub>].

L11 ANSWER 85 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1981:620106 CAPLUS  
 DN 95:220106  
 OREF 95:36733a,36736a  
 TI Oxidative addition of triorganostannanes to amine, phosphite and phosphine complexes of platinum  
 AU Almeida, Joaquim F.; Azizian, Hormoz; Eaborn, Colin; Pidcock, Alan  
 CS Sch. Mol. Sci., Univ. Sussex, Brighton, BN1 9QJ, UK  
 SO Journal of Organometallic Chemistry (1981), 210(1), 121-33  
 CODEN: JORCAI; ISSN: 0022-328X  
 DT Journal  
 LA English  
 AB Triarylstannanes SnHR<sub>3</sub> react with the platinum(0) complexes [PtL<sub>4</sub>] [L = P(OR)<sub>3</sub>, R<sub>1</sub> = Ph, C<sub>6</sub>H<sub>4</sub>Me-3 or -4] and [Pt(PPh<sub>3</sub>)L<sub>3</sub>] [L = P(OC<sub>6</sub>H<sub>4</sub>Me-3)<sub>3</sub>] to give trans-[Pt(SnR<sub>3</sub>)<sub>2</sub>L<sub>2</sub>], with the oxalato-platinum(II) complexes [Pt(C<sub>2</sub>O<sub>4</sub>)LL<sub>1</sub>] [L = L<sub>1</sub> = P(OPh)<sub>3</sub>; L = PMe<sub>2</sub>Ph, L<sub>1</sub> = P(OPh)<sub>3</sub>; L = PEt<sub>3</sub>, L<sub>1</sub> = P(OPh)<sub>3</sub>] to give trans-[Pt(SnR<sub>3</sub>)<sub>2</sub>LL<sub>1</sub>], with [Pt(CO<sub>3</sub>)(BIPY)] (BIPY = 2,2'-bipyridyl) to give stable platinum(IV) complexes cis-trans-[PtH<sub>2</sub>(SnR<sub>3</sub>)<sub>2</sub>(BIPY)], with [PtMe<sub>2</sub>(BIPY)] to give cis-trans-[PtH(Me)(SnR<sub>3</sub>)<sub>2</sub>(BIPY)], and with cis-[PtMe<sub>2</sub>(PMe<sub>2</sub>Ph)<sub>2</sub>] to give trans-[Pt(SnR<sub>3</sub>)<sub>2</sub>(PMe<sub>2</sub>Ph)<sub>2</sub>] or [PtH(Me)(SnR<sub>3</sub>)<sub>2</sub>(PMe<sub>2</sub>Ph)<sub>2</sub>], and with

cis-[PtMe<sub>2</sub>(PY)(PPh<sub>3</sub>)] (PY = pyridine) to give trans-[Pt(SnPh<sub>3</sub>)<sub>2</sub>(PPh<sub>3</sub>)(PY)]. The results indicate that the stability of the platinum(IV) complexes increases with the hardness of the bases L:P(OR)<sub>3</sub> < phosphines < BIPY. The reaction mixts. of SnHPh<sub>3</sub> and [PtMe<sub>2</sub>(BIPY)] or [PtMe<sub>2</sub>(PMe<sub>2</sub>Ph)<sub>2</sub>] catalyze homogeneously the formation of Sn<sub>2</sub>Ph<sub>6</sub>. The starting complexes and product complexes were characterized by elemental anal., IR, <sup>1</sup>H and <sup>31</sup>P NMR spectroscopy.

L11 ANSWER 86 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1981:453976 CAPLUS

DN 95:53976

OREF 95:9003a,9006a

TI Preparation of platinum(II) complexes of diamine isomers [PtX(1,3-diamine)] (X = dichloro, sulfato, dinitrato, oxalato, D-glucuronato, and D-gluconato) and determination of their antitumor activity against leukemia L1210

AU Okamoto, Koji; Noji, Masahide; Tashiro, Tazuko; Kidani, Yoshinori

CS Fac. Pharm. Sci., Nagoya City Univ., Nagoya, 467, Japan

SO Chemical & Pharmaceutical Bulletin (1981), 29(4), 929-39

CODEN: CPBTAL; ISSN: 0009-2363

DT Journal

LA English

AB Pt(II) complexes of the type [PtX(1,3-diamine)] (X = Cl<sub>2</sub>, SO<sub>4</sub>, (NO<sub>3</sub>)<sub>2</sub>, oxalato, D-glucuronato, D-gluconato; 1,3-diamine = 2-(aminomethyl)cyclohexylamine, 2,4-pentanediamine, 1,3-butanediamine, and 1,3-diphenyl-1,3-propanediamine isomers) were prepared, and their antitumor activity against leukemia L1210 was tested according to the protocol recommended by the National Cancer Institute for the evaluation of Pt analogs. A large number of long-term survivors was observed with certain analogs, though the therapeutic indexes were not large. Among the Pt(II) complexes tested so far, trans-1- and cis-1-2-(aminomethyl)cyclohexylamine Pt(II) complexes showed marked antitumor activity, while 1,3-diphenyl-1,3-propanediamine Pt(II) complexes were almost inactive because of their low solubility in H<sub>2</sub>O. The structures of the complexes are discussed on the basis of the CD and <sup>13</sup>C NMR spectral data. The structure of the cis-1-2-(aminomethyl)cyclohexylamine complex was much more flexible than that of the trans-1-2-(aminomethyl)cyclohexylamine complex, and the cyclohexane ring and the chelate ring of the latter lie in a common plane. The coplanarity of trans-2-(aminomethyl)cyclohexylamine and the flexibility of cis-2-(aminomethyl)cyclohexylamine may allow them to approach the target DNA relatively easily.

L11 ANSWER 87 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1981:77033 CAPLUS

DN 94:77033

OREF 94:12427a,12430a

TI Compositions containing platinum for pharmaceutical compositions

IN Hydes, Paul C.; Malerbi, Bernard W.

PA Johnson, Matthey and Co., Ltd., UK

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4225529	A	19800930	US 1978-952982	19781017 <--
	SE 7810799	A	19790420	SE 1978-10799	19781017 <--
	SE 447902	B	19861222		
	SE 447902	C	19870402		
	NL 7810432	A	19790423	NL 1978-10432	19781018 <--
	DE 2845373	A1	19790426	DE 1978-2845373	19781018 <--
	DE 2845373	C2	19910613		
	GB 2025938	A	19800130	GB 1978-41111	19781018 <--

	GB 2025938	B	19821103		
	FR 2406443	A1	19790518	FR 1978-30420	19781019 <--
	FR 2406443	B1	19830603		
	JP 54070225	A	19790605	JP 1978-127905	19781019 <--
	JP 63026116	B	19880527		
	CA 1120939	A1	19820330	CA 1978-313743	19781019 <--
PRAI	GB 1977-43491	A	19771019		
	GB 1978-20463	A	19780518		
	GB 1978-29630	A	19780712		
	GB 1978-2963078	A	19780712		
OS	MARPAT 94:77033				
AB	Cis Pt coordination compds. RPtR1R2R3 (R and R1 = halide, sulfate, phosphate, NO2, carboxylate, etc.; R2 and R3 = straight chain amines, etc.) were synthesized and tested for antitumor activity in mice. Thus, cis-[PtI2(BuNH2)2] was reacted with AgNO3 to form the butylamine diaquo complex [71361-18-7]. In addition, the cis-bis(chloroacetate)bis(propylamine)platinum II complex [71361-21-2] was prepared by reaction of the propylamine diaquo complex with K chloroacetate. Several of the Pt complexes were administered i.p. to mice as single doses suspended in arachis oil and tested for antitumor activity.				

L11 ANSWER 88 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1979:551540 CAPLUS

DN 91:151540

OREF 91:24329a,24332a

TI Platinum complexes

IN Kitani, Yoshinori; Nomichi, Masahide

PA Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

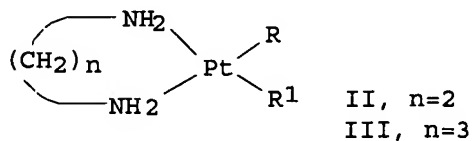
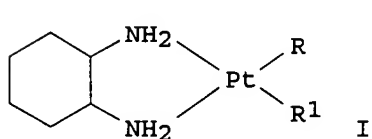
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 54044620	A	19790409	JP 1977-108921	19770912 <--
	JP 58029957	B	19830625		
	EP 1126	A1	19790321	EP 1978-100871	19780912 <--
	EP 1126	B1	19820818		
	R: DE, FR, GB				
	US 4200583	A	19800429	US 1978-941559	19780912 <--
	US 4256652	A	19810317	US 1979-46628	19790608 <--
PRAI	JP 1977-108921		19770912		
	US 1978-941559	A3	19780912		
OS	MARPAT 91:151540				
GI					



AB Pt complexes I, II, and III (R = R1 = Cl, Br, I, NO3, O2CCH2Br, or glucuronate or RR1 = SO42-, C2O42-, or glucuronate) are antitumor agents. Twenty-six of these complexes are prepared For example, cis-dibromo(trans-1-1,2-diaminocyclohexane)platinum(II) [67225-25-6] was prepared by treating cis-dinitrato(trans-1-1,2-diaminocyclohexane)platinum(II) [66900-68-3] (0.43 g) dissolved in 20 mL water with 1 g KBr. This complex (25 mg/kg) injected i.p. into mice bearing p388 tumor showed the highest antitumor activity

among 26 complexes tested.

L11 ANSWER 89 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1979:534254 CAPLUS

DN 91:134254

OREF 91:21557a,21560a

TI Platinum coordination compounds

PA Johnson, Matthey and Co. Ltd., UK

SO Belg., 21 pp.

CODEN: BEXXAL

DT Patent

LA French

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	BE 871373	A1	19790215	BE 1978-191207	19781019 <--
PRAI	GB 1977-43492	A	19771019		

AB The title compds. PtABXY (A and B = branched aliphatic amine; X and Y = carboxylate, nitrate, sulfate, etc.) derived from diaquadiaminoplatinum are neoplasm inhibitors. Thus, bis(chloroacetato)bis(isopropylamine) platinum(II) [69450-51-7] at 16 mg/kg for 9 days, showed antitumor activity against leukemia L-1210 in mice.

L11 ANSWER 90 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1979:65859 CAPLUS

DN 90:65859

OREF 90:10327a,10330a

TI Complexes of platinum(II) with 2,2'-bipyrimidine: the effect of hydrogen bonding on intermetallic interactions

AU Kiernan, Patrick M.; Ludi, Andreas

CS Inst. Anorg. Chem., Univ. Bern, Bern, Switz.

SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1972-1999) (1978), (9), 1127-30

CODEN: JCDTBI; ISSN: 0300-9246

DT Journal

LA English

AB PtX<sub>2</sub>L (X = CN, Cl, SCN; X<sub>2</sub> = C<sub>2</sub>O<sub>4</sub>; L = 2,2'-bipyrimidine), [PtL<sub>2</sub>][PtX<sub>4</sub>] (X = Cl, CN), and [Pt<sub>2</sub>(NH<sub>3</sub>)<sub>4</sub>L](NO<sub>3</sub>)<sub>4</sub> were prepared and characterized by elemental anal., IR, and electronic spectra. The [Pt<sub>2</sub>(NH<sub>3</sub>)<sub>4</sub>L]<sup>4+</sup> complex contains a doubly bidentate ligand bridging 2 Pt ions. Intense absorption bands in the visible region assigned to Pt-Pt interactions are related to strong H bonding involving the uncoordinated heterocyclic N atoms.

L11 ANSWER 91 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1979:15658 CAPLUS

DN 90:15658

OREF 90:2475a,2478a

TI Coordination compounds of platinum(II) with N-methyl imidazole as a ligand

AU Van Kralingen, C. G.; Reedijk, J.

CS Dep. Chem., Delft Univ. Technol., Delft, Neth.

SO Inorganica Chimica Acta (1978), 30(2), 171-7

CODEN: ICHAA3; ISSN: 0020-1693

DT Journal

LA English

AB The preparation of a number of new coordination compds. of Pt(II) with the N-donor

ligand N-methylimidazole (NMIz) is described. These compds. are cis-Pt(NMIz)<sub>2</sub>X<sub>2</sub>, Pt(NMIz)<sub>2</sub>C<sub>2</sub>O<sub>4</sub>.H<sub>2</sub>O, trans-Pt(NMIz)<sub>2</sub>X<sub>2</sub>, Pt(NMIz)<sub>4</sub>X<sub>2</sub>(H<sub>2</sub>O)<sub>n</sub>, and [Pt(NMIz)<sub>4</sub>][PtX<sub>4</sub>], where X = Cl, Br or I and n = 0 or 2, and the mixed-valence compound [Pt(NMIz)<sub>4</sub>][PtCl<sub>6</sub>]. The new compds. were characterized by chemical analyses, x-ray powder diffraction, vibrational spectroscopy (IR, far-IR and Raman), thermal analyses (thermogravimetry and DTA), and <sup>1</sup>H NMR. The cis-dichloro and cis-dibromo compds. exist in



several crystal forms with slightly different spectroscopic properties..  
When dissolved in concentrated HCl and exposed to air, the  
compound [Pt(NMIz)<sub>4</sub>] [PtCl<sub>4</sub>] is oxidized to [Pt(NMIz)<sub>4</sub>] [PtCl<sub>6</sub>].

L11 ANSWER 92 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1978:599862 CAPLUS

DN 89:199862

OREF 89:31057a,31060a

TI The cis platinum(II) complexes of 1,2-diaminocyclohexane isomers

IN Kitani, Yoshinori; Inagaki, Kenji

PA Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

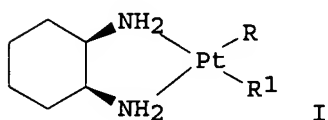
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53031648	A	19780325	JP 1976-106509	19760906 <--
	JP 60041077	B	19850913		
	US 4169846	A	19791002	US 1978-924320	19780713 <--
PRAI	JP 1976-106509	A	19760906		
	US 1977-775216	A1	19770307		
OS	MARPAT 89:199862				
GI					



AB I (R, R1 = halo; RR1 = O<sub>2</sub>CCO<sub>2</sub>, O<sub>2</sub>CH<sub>2</sub>CO<sub>2</sub>, O<sub>2</sub>CCHMeCO<sub>2</sub>) were prepared Thus,  
reaction of 5 g cis-diaminocyclohexane with 18 g aqueous K<sub>2</sub>(PtCl<sub>4</sub>) 12 h at  
room temperature gave 12 g I (R = R1 = Cl) (II). AgNO<sub>3</sub> (6.8 g) was added to 3  
g  
aqueous II, the mixture stirred 2-3 h in the dark, 4.8 g K oxalate added, the  
reaction mixture kept 8 h at room temperature 1.5 to give I (R = O<sub>2</sub>CCO<sub>2</sub>) (III).  
Anticarcinogenic data of I were shown against tumor L1210 and P388 and  
Sarcoma 180A in mice. LD<sub>50</sub> of II and III were 11.3 and 37.5 mg/kg in mice  
(i.p.).

L11 ANSWER 93 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1978:16014 CAPLUS

DN 88:16014

OREF 88:2495a,2498a

TI Preparation and antitumor evaluation of water-soluble derivatives of  
dichloro(1,2-diaminocyclohexane)platinum(II)

AU Schwartz, Paul; Meischen, Sandra J.; Gale, Glen R.; Atkins, Loretta M.;  
Smith, Alayne B.; Walker, Ernest M., Jr.

CS VA Hosp., Charleston, SC, USA

SO Cancer Treatment Reports (1977), 61(8), 1519-25

CODEN: CTRRDO; ISSN: 0361-5960

DT Journal

LA English

AB The structure of the antitumor agent NSC-194814 [dichloro(1,2-diaminocyclohexane)platinum(II)] [52691-24-4] was  
modified by replacing the chlorides with organic or inorg. anions. Eighteen  
new Pt complexes were so isolated and their antitumor properties against  
the L1210 leukemia in C57BL/6 + DBA/2 mice were evaluated. Most of  
the complexes were readily soluble in water and some had enhanced antitumor

activity compared to the parent dichloro complex. In addition, increased solubility with retention of significant antitumor activity was obtained by oxidizing the parent dichloroplatinum(II) complex with halogen or peroxide to give 2 Pt(IV) complexes. Some previously reported Pt complexes with P, Se, or Te electron-donor ligands were also synthesized and assessed for antitumor action, but these did not show appreciable activity.

L11 ANSWER 94 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1977:400298 CAPLUS

DN 87:298

OREF 87:55a,58a

TI Synthesis and anti-tumor activities of platinum(II) complexes of 1,2-diaminocyclohexane isomers and their related derivatives

AU Kidani, Y.; Inagaki, K.; Saito, R.; Tsukagoshi, S.

CS Nagoya City Univ., Nagoya, Japan

SO Journal of Clinical Hematology and Oncology (1977), 7(1), 197-209

CODEN: JCHODP; ISSN: 0162-9360

DT Journal

LA English

AB Pt(II) complexes with cis- [1436-59-5], d-trans [21436-03-3], and l-trans-1,2-diaminocyclohexane [20439-47-8] were prepared and tested for antitumor activity. The Pt(II) complexes included the Cl, oxalate, malonate, and methylmalonate salts and the uracil complexes. The l-trans-1,2-diaminocyclohexane complexes showed the greatest neoplasm inhibiting activity. In contrast, complexes of Cu and Ni with 1,2-diaminocyclohexane were inactive. The conformational difference observed in this study may give very important information in the study of the mechanism of Pt complexes.

L11 ANSWER 95 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1976:455949 CAPLUS

DN 85:55949

OREF 85:8981a,8984a

TI Solid bis(1,10-phenanthroline)platinum(II)- and bis(2,2'-bipyridyl)platinum(II) platinate(II) with intermolecular metal-metal interactions

AU Little, W. A.; Lorentz, R.

CS Dep. Phys., Stanford Univ., Stanford, CA, USA

SO Inorganica Chimica Acta (1976), 18(3), 273-8

CODEN: ICHAA3; ISSN: 0020-1693

DT Journal

LA English

AB [Pt(py)<sub>4</sub>][Pt(CN)<sub>4</sub>], [Pt(o-phen)<sub>2</sub>]<sub>2</sub>X<sub>2</sub> (o-phen = o-phenanthroline; X = Cl, I), and [PtL<sub>2</sub>][PtZ<sub>4</sub>] (L = 2,2'-bipyridine, Z = CN, 0.5C<sub>2</sub>O<sub>4</sub>, NO<sub>2</sub>; L = 5,5'-dimethyl-2,2'-bipyridine, Z = CN, 0.5C<sub>2</sub>O<sub>4</sub>, NO<sub>2</sub>; L = o-phenanthroline, Z = Cl, CN, 0.5C<sub>2</sub>O<sub>4</sub>, NO<sub>2</sub>; L = 4,7-dimethyl-1,10-phenanthroline, Z = 0.5C<sub>2</sub>O<sub>4</sub>, NO<sub>2</sub>) were prepared and characterized by their electronic absorption spectra and elemental analyses.

L11 ANSWER 96 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1972:564833 CAPLUS

DN 77:164833

OREF 77:27079a,27082a

TI Reactions of carbonato and oxalato complexes of platinum(II). Formation of cationic clusters of platinum

AU Blake, D. M.; Leung, L. M.

CS Dep. Chem., Univ. Texas, Arlington, TX, USA

SO Inorganic Chemistry (1972), 11(12), 2879-83

CODEN: INOCAJ; ISSN: 0020-1669

DT Journal

LA English

AB Pt-(PPh<sub>3</sub>)<sub>2</sub>(C<sub>2</sub>O<sub>4</sub>) reacted with CO and acetylenes in EtOH to produce cluster cations with the formula [Pt<sub>3</sub>[PPh<sub>3</sub>]<sub>4</sub>CO(PhC:C(H)R)]<sup>+</sup> (R = Ph or Me). An

analog containing  $\text{PMePh}_2$  was also reported. A 2nd type of cluster cation with the apparent formula  $[\text{Pt}_3-(\text{PPh}_3)_4]^+$  was obtained by reaction of the oxalato complex with H. Nitrate, fluoroborate, and fluorophosphate salts of these cations were isolated. In order to characterize these compds. and elucidate the path of their formation, some reactions of  $\text{Pt}(\text{PPh}_3)_2(\text{CO}_3)$  with CO and acetylenes and reactions of  $\text{Pt}(0)$ -acetylene complexes with CO and acids were investigated.

L11 ANSWER 97 OF 97 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1969:422165 CAPLUS

DN 71:22165

OREF 71:4093a,4096a

TI New precursors for platinum(0) and palladium(0) complexes: photochemical decomposition of oxalatobis(triphenylphosphine)platinum(II) and related complexes

AU Blake, Daniel M.; Nyman, C. J.

CS Washington State Univ., Pullman, WA, USA

SO Journal of the Chemical Society [Section] D: Chemical Communications (1969), (9), 483

CODEN: CCJDAO; ISSN: 0577-6171

DT Journal

LA English

GI For diagram(s), see printed CA Issue.

AB  $\text{Pt}(\text{PPh}_3)_2\text{C}_2\text{O}_4$ , m.  $290-5^\circ$ ,  $\text{Pd}(\text{PPh}_3)_2\text{C}_2\text{O}_4$ , m.  $176-81^\circ$ ,

$\text{Pt}(\text{AsPh}_3)_2\text{C}_2\text{O}_4$ , m.  $270-5^\circ$ , and  $\text{PtLC}_2\text{O}_4$  [L = 1,2-

bis(diphenylphosphino)-ethane], m.  $265-9^\circ$ , were prepared by the

reaction of  $\text{H}_2\text{C}_2\text{O}_4$  with the corresponding carbonate complexes. Irradiation of these complexes with uv light produces orange to brown mixts. and 2 moles of  $\text{CO}_2$  are evolved/mole of complex. Under similar conditions in the absence of light no decomposition occurs. In the case of  $[\text{Pt}(\text{PPh}_3)_2\text{C}_2\text{O}_4]$ , the reaction gives a colorless solid (I) (30%), m.  $244-8^\circ$ ; structure I

was suggested for the compound based on mol. weight determination, elemental anal. and ir spectra.

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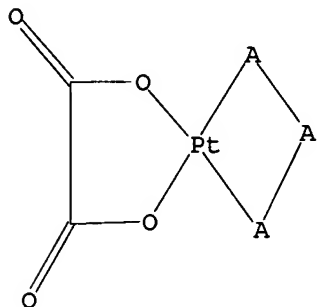
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SEARCH TIME: 00.00.01

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L4 5 L3

=> d 1-5 bib abs

L4 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:557611 CAPLUS

DN 135:338393

TI Oxidative degradation of the ascorbate anion in the presence of platinum and palladium. Formation and structures of platinum and palladium oxalate complexes

AU Arendse, M. J.; Anderson, G. K.; Rath, N. P.

CS Department of Chemistry, University of Missouri-St. Louis, St. Louis, MO, 63121, USA

SO Polyhedron (2001), 20(19), 2495-2503

CODEN: PLYHDE; ISSN: 0277-5387

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 135:338393

AB The reactions of [Pt(NO<sub>3</sub>)<sub>2</sub>(dppm)] (dppm = bis(diphenylphosphino)methane) and cis-[Pt(NO<sub>3</sub>)<sub>2</sub>(PEt<sub>3</sub>)<sub>2</sub>] with sodium ascorbate are described. Complexes containing O,O-coordinated ascorbate ligands are formed initially, but on standing further oxidation and cleavage of the ligand occur to produce the corresponding oxalate complexes. The reactions were monitored by NMR spectroscopy, and reactions of [Pt(NO<sub>3</sub>)<sub>2</sub>(dppm)] with oxalic acid or calcium threonate also produced [Pt(C<sub>2</sub>O<sub>4</sub>)(dppm)]. Reactions of [PtMe(Me<sub>2</sub>CO)(dppe)]<sup>+</sup> or [PdMe(Me<sub>2</sub>CO)(P-P)]<sup>+</sup> (P-P = dppe, dppp) with sodium ascorbate result in cleavage of the M-C bond and oxidation of ascorbate to again produce metal oxalate derivs. The solid state structures of [Pt(C<sub>2</sub>O<sub>4</sub>)(dppm)]·Me<sub>2</sub>CO, [Pd(C<sub>2</sub>O<sub>4</sub>)(dppe)]·H<sub>2</sub>O and [Pd<sub>2</sub>(μ-C<sub>2</sub>O<sub>4</sub>)(dppp)<sub>2</sub>][BF<sub>4</sub>]<sub>2</sub>·2Me<sub>2</sub>CO, determined by x-ray crystallog., are described.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:651524 CAPLUS

DN 117:251524

TI Photochemical reactions of diphosphineplatinum(II) oxalate complexes

AU Anderson, Gordon K.; Lumetta, Gregg J.; Siria, Jeffrey W.

CS Dep. Chem., Univ. Missouri, St. Louis, MO, 63121, USA

SO Journal of Organometallic Chemistry (1992), 434(2), 253-9

CODEN: JORCAI; ISSN: 0022-328X

DT Journal

LA English

OS CASREACT 117:251524

AB Irradiation at 254 nm of CH<sub>3</sub>CN/C<sub>6</sub>H<sub>6</sub> or PhCN solns. of [Pt(C<sub>2</sub>O<sub>4</sub>)(dppe)] produces 2 equivalent of CO<sub>2</sub>, and in the presence of PhCl or PhI yields [PtX<sub>2</sub>(dppe)] (X = Cl, I). With CO or PhC.tplbond.CPh the products are

[Pt(CO)<sub>2</sub>(dppe)] or [Pt(PhC.tplbond.CPh)(dppe)], but in the latter case extended photolysis yields [PtPh(C.tplbond.CPh)(dppe)]. Photolysis in the presence of H<sub>2</sub> gives a mixture of the [Pt<sub>2</sub>H<sub>3</sub>(dppe)<sub>2</sub>]<sup>+</sup> and [Pt<sub>3</sub>H<sub>3</sub>(dppe)<sub>3</sub>]<sup>+</sup> cations. Simple elimination of CO<sub>2</sub> does not occur in all cases, as illustrated by the formation of [Pt(CO<sub>2</sub>Me)(dppe)] when [Pt(C<sub>2</sub>O<sub>4</sub>)(dppe)] is photolyzed in the presence of methanol. Photochem. reactions of the related complexes [Pt(C<sub>2</sub>O<sub>4</sub>)L<sub>2</sub>] [L<sub>2</sub> = dppm, dcpe [1,2-bis(dicyclohexylphosphino)ethane]] are also described.

L4 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:148350 CAPLUS

DN 106:148350

TI Preparation and substitution reactions of (diphosphine)platinum(II) carboxylate complexes

AU Anderson, Gordon K.; Lumetta, Gregg J.

CS Dep. Chem., Univ. Missouri, St. Louis, MO, 63121, USA

SO Inorganic Chemistry (1987), 26(8), 1291-5

CODEN: INOCAJ; ISSN: 0020-1669

DT Journal

LA English

AB [Pt(OBz)<sub>2</sub>(dppe)] (dppe = Ph<sub>2</sub>PCH<sub>2</sub>CH<sub>2</sub>PPh<sub>2</sub>), [Pt(mal)(dppe)] (H<sub>2</sub>mal = malonic acid), and [Pt(mal)(dppm)] (dppm = (Ph<sub>2</sub>P)<sub>2</sub>CH<sub>2</sub>) are prepared by treatment of [PtCl<sub>2</sub>(dppe)] or [PtCl<sub>2</sub>(dppm)] with AgOBz or Ag<sub>2</sub>(mal). [Pt(OBz)<sub>2</sub>(dppe)] reacts with PBu<sub>3</sub> to yield [Pt(OBz)(PBu<sub>3</sub>)(dppe)]<sup>+</sup>, which subsequently reacts with chlorinated solvents to produce [PtCl(PBu<sub>3</sub>)(dppe)]<sup>+</sup>. Analogously, [Pt(mal)(dppe)] gives [PtCl(L)(dppe)]<sup>+</sup> when treated with L (L = PBu<sub>3</sub>, PEt<sub>3</sub>, or PMePh<sub>2</sub>). For L = PBu<sub>3</sub> the intermediate [Pt+(O<sub>2</sub>CCH<sub>2</sub>CO<sub>2</sub>-)(PBu<sub>3</sub>)(dppe)] is observed spectroscopically at low temperature

and

may be protonated with HClO<sub>4</sub>. The ease of substitution of dicarboxylate or diphosphine ligands was studied by allowing [PtL<sub>1</sub>L<sub>2</sub>] (H<sub>2</sub>L<sub>1</sub> = oxalic and malonic acids; L<sub>2</sub> = dppe, dppm) to react with PBu<sub>3</sub>. [Pt(mal)(dppm)] reacts with 2 molar equiv of PBu<sub>3</sub> or PMePh<sub>2</sub> to give ion-paired [PtL<sub>2</sub>(dppm)][mal].

L4 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1986:637311 CAPLUS

DN 105:237311

TI Reactions of platinum(II) carboxylate complexes with tertiary phosphines and chlorinated solvents

AU Anderson, Gordon K.; Lumetta, Gregg J.

CS Dep. Chem., Univ. Missouri, St. Louis, MO, 63121, USA

SO Inorganica Chimica Acta (1986), 118(1), L9-L10

CODEN: ICHAA3; ISSN: 0020-1693

DT Journal

LA English

AB Reaction of Pt(OBz)<sub>2</sub>(dppe) (dppe = Ph<sub>2</sub>PCH<sub>2</sub>CH<sub>2</sub>PPh<sub>2</sub>) in CH<sub>2</sub>Cl<sub>2</sub> or C<sub>6</sub>H<sub>5</sub>CH<sub>2</sub>Cl with PBu<sub>3</sub> gave initially [Pt(OBz)(PBu<sub>3</sub>)(dppe)]<sup>+</sup> and eventually [PtCl(PBu<sub>3</sub>)(dppe)]<sup>+</sup> (I). The same reaction in CH<sub>3</sub>CN gave only [Pt(OBz)(PBu<sub>3</sub>)(dppe)]<sup>+</sup>. Reaction of Pt(mal)(dppe) (II; H<sub>2</sub>mal = malonic acid) in CH<sub>2</sub>Cl<sub>2</sub> with L (L = PBu<sub>3</sub>, PEt<sub>3</sub>, PMePh<sub>2</sub>) gave rapidly [PtClL(dppe)]<sup>+</sup>. Reaction of II in CDCl<sub>3</sub> at -60° with PBu<sub>3</sub> gave Pt(mal)(PBu<sub>3</sub>)(dppe) which on warming to ambient temperature was converted to I. No reaction was observed between II and PPh<sub>3</sub>, AsPh<sub>3</sub> and SbPh<sub>3</sub> whereas with NEt<sub>3</sub>, PtCl<sub>2</sub>(dppe) was formed slowly. Pt(C<sub>2</sub>O<sub>4</sub>)(dppe) in CDCl<sub>3</sub> or CH<sub>2</sub>Cl<sub>2</sub> and PBu<sub>3</sub> gave I, a significant amount of Pt(C<sub>2</sub>O<sub>4</sub>)(PBu<sub>3</sub>)<sub>2</sub> and other species. Pt(C<sub>2</sub>O<sub>4</sub>)(dppm) (dppm = (Ph<sub>2</sub>P)<sub>2</sub>CH<sub>2</sub>) reacted with L<sub>1</sub> (L<sub>1</sub> = PBu<sub>3</sub>, PEt<sub>3</sub>) in CDCl<sub>3</sub> to give Pt(C<sub>2</sub>O<sub>4</sub>)L<sub>1</sub>L<sub>2</sub>. Pt(mal)(dppm) in CDCl<sub>3</sub> at -40° reacted with PBu<sub>3</sub> (1:1 ratio) to give [Pt(PBu<sub>3</sub>)<sub>2</sub>(dppm)]<sub>2</sub><sup>+</sup> and on warming to room temperature gave Pt(mal)(PBu<sub>3</sub>)<sub>2</sub> and [PtCl(PBu<sub>3</sub>)(dppm)]<sup>+</sup>. In a 1:2 ratio only [Pt(PBu<sub>3</sub>)<sub>2</sub>(dppm)]<sub>2</sub><sup>+</sup> and Pt(mal)(PBu<sub>3</sub>)<sub>2</sub> were formed. The reactions of Pt(mal)(dppm) with PEt<sub>3</sub> were similar but with PMePh<sub>2</sub>, [PtCl(PMePh<sub>2</sub>)<sub>3</sub>]<sup>+</sup> was also formed. [PtCl(PMePh<sub>2</sub>)(dppm)]<sup>+</sup>, obtained from PtCl<sub>2</sub>(dppm) and PMePh<sub>2</sub>, is fluxional at room temperature but not at -40° and reacted with PMePh<sub>2</sub>

to give [Pt(PMePh<sub>2</sub>)(dppm)]<sup>+</sup> observable at low temperature All the reaction products were detected by <sup>31</sup>P{<sup>1</sup>H} NMR.

L4 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1986:479116 CAPLUS  
 DN 105:79116  
 TI Reactions of diphosphineplatinum(II) oxalate complexes with phenylacetylene. Formation of phenylalkynylplatinum complexes  
 AU Anderson, Gordon K.; Lumetta, Gregg J.  
 CS Dep. Chem., Univ. Missouri, St. Louis, MO, 63121, USA  
 SO Journal of Organometallic Chemistry (1985), 295(2), 257-64  
 CODEN: JORCAI; ISSN: 0022-328X  
 DT Journal  
 LA English  
 OS CASREACT 105:79116  
 AB [Pt(C<sub>2</sub>O<sub>4</sub>)(dpppe)] reacts thermally with PhC.tplbond.CH to produce [Pt(C.tplbond.CPh)<sub>2</sub>(dpppe)], which has been prepared by alternative routes. Similar treatment of [Pt(C<sub>2</sub>O<sub>4</sub>)(dppm)] initially produces [Pt(C.tplbond.CPh)<sub>2</sub>(dppm)], which rearranges to give cis,cis-[Pt<sub>2</sub>(C.tplbond.CPh)<sub>4</sub>(μ-dppm)<sub>2</sub>]. Reaction of [PtCl<sub>2</sub>(dppm)] with PhC.tplbond.CH/KOH/18-crown-6, or with (PhC.tplbond.C)SnMe<sub>3</sub>, gives [Pt(C.tplbond.CPh)<sub>2</sub>(dppm)], which may be converted to the cis,cis-dimer by addition of oxalic acid. UV irradiation or refluxing with a trace amount of dppm converts [Pt(C.tplbond.CPh)<sub>2</sub>(dppm)] to trans,trans-[Pt<sub>2</sub>(C.tplbond.CPh)<sub>2</sub>(μ-dppm)<sub>2</sub>], but the cis,cis-dimer is stable under these conditions. [Pt(C<sub>2</sub>O<sub>4</sub>)L<sub>2</sub>] (L = PPh<sub>3</sub>, PEt<sub>3</sub>) complexes also react thermally with PhC.tplbond.CH to yield [Pt(C.tplbond.CPh)<sub>2</sub>L<sub>2</sub>] species.

=> s "bis-dicarboxylatoplatinate(II)"  
 505087 "BIS"  
 1 "DICARBOXYLATOPLATINATE"  
 2192912 "II"  
 L5 1 "BIS-DICARBOXYLATOPLATINATE(II)"  
 ("BIS"(W)"DICARBOXYLATOPLATINATE"(W)"II")

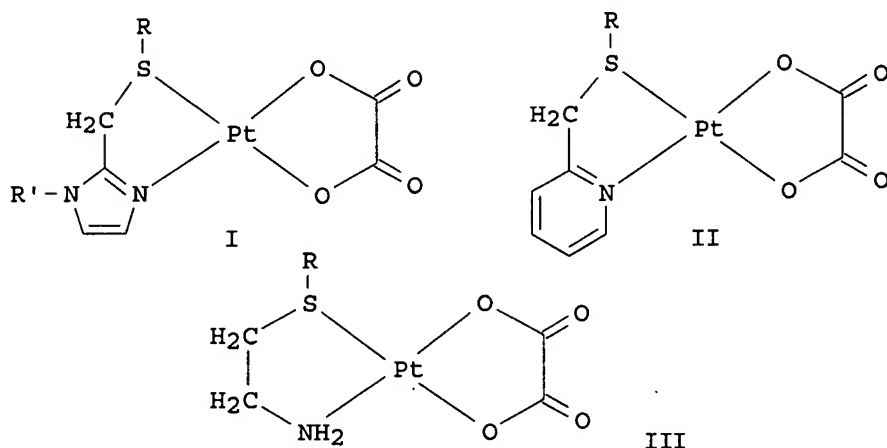
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L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2005:493614 CAPLUS  
 DN 143:37556  
 TI Preparation of platinum(II) dicarboxylate complexes for use as antitumor agents  
 IN Du Preez, Jan Gysbert Hermanus  
 PA Platco Technologies Proprietary Limited, S. Afr.  
 SO PCT Int. Appl., 38 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005051966	A1	20050609	WO 2004-IB3855	20041124
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,				

NE, SN, TD, TG

CA 2547275	A1	20050609	CA 2004-2547275	20041124
EP 1704156	A1	20060927	EP 2004-798964	20041124
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
JP 2007512318	T	20070517	JP 2006-540664	20041124
US 2007167643	A1	20070719	US 2007-580425	20070209
PRAI US 2003-524727P	P	20031125		
WO 2004-IB3855	W	20041124		
OS CASREACT 143:37556				
GI				



AB This invention relates to a method for the preparation of platinum(II) complexes, in particular dicarboxylatoplatinum(II) complexes containing a neutral bidentate ligand, such as oxaliplatin. The method includes the step of reacting a bis(dicarboxylato)platinate(II) species with a suitable neutral bidentate ligand to form a neutral dicarboxylatoplatinum(II) complex and, if necessary, recrystg. the product to form a pure dicarboxylatoplatinum(II) complex containing a neutral bidentate ligand. The invention also relates to a method for producing a bis-dicarboxylatoplatinate(II) species, and to new platinum(II) complexes that can be made by the method of the invention. Thus, platinum(II) oxalato complexes (I; R = Me, Bu; R' = Et, Pr, Me and II; R = Me, Et, Pr and III; R = Me, Et, Pr) were prepared and complex I (R = Me, R' = Pr) was tested for antitumor activity.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT



(FILE 'HOME' ENTERED AT 16:04:22 ON 13 DEC 2007)

L1 FILE 'REGISTRY' ENTERED AT 16:05:01 ON 13 DEC 2007  
STRUCTURE UPLOADED

FILE 'CASREACT' ENTERED AT 16:05:45 ON 13 DEC 2007

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L1 HAS NO ANSWERS  
L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*  
Structure attributes must be viewed using STN Express query preparation.

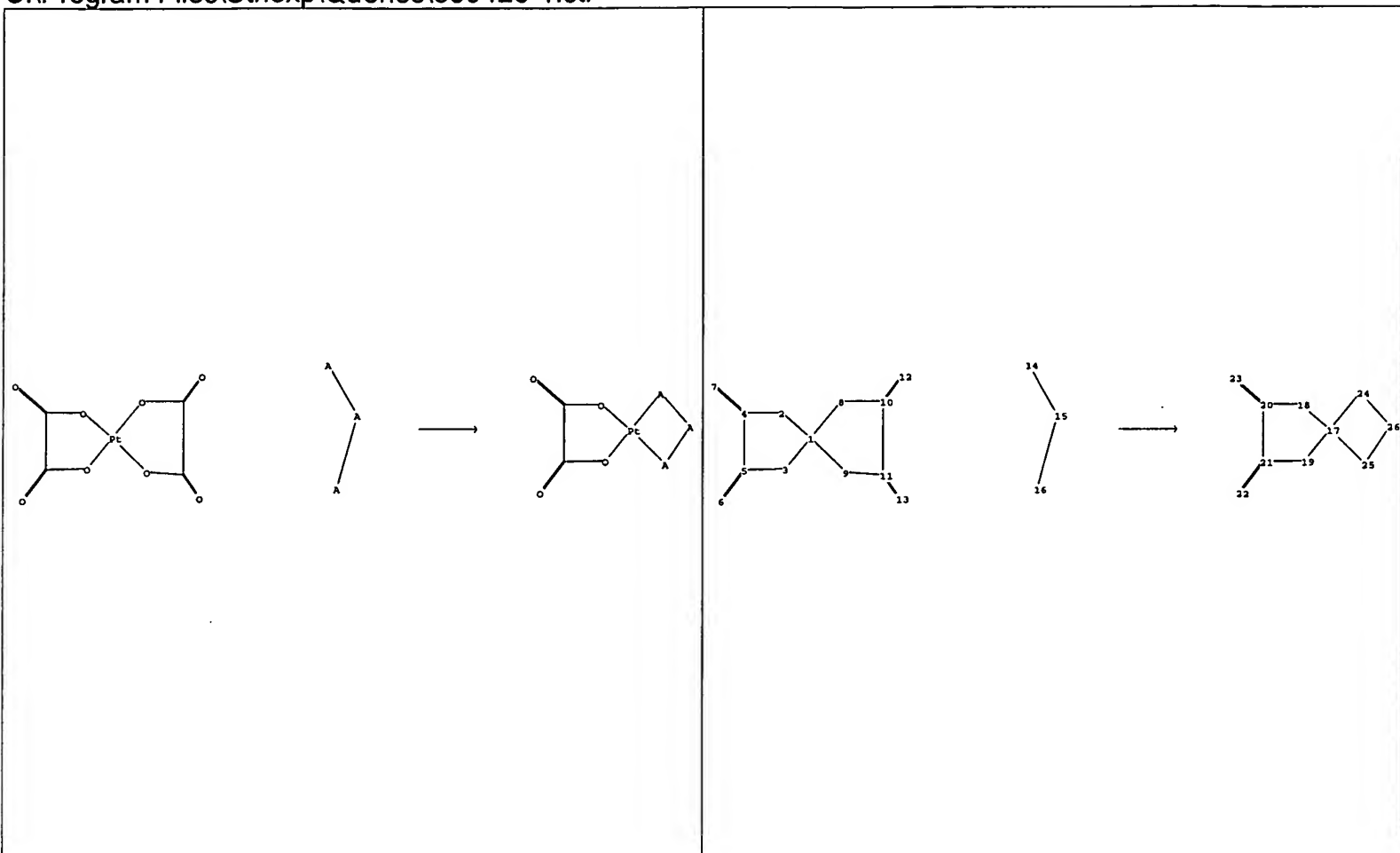
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FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED VERIFICATIONS: 2 TO 124  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1 ( 0 REACTIONS)

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SCREENING COMPLETE - 12 REACTIONS TO VERIFY FROM 6 DOCUMENTS  
  
100.0% DONE 12 VERIFIED 0 HIT RXNS 0 DOCS  
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1 ( 0 REACTIONS)



chain nodes :

6 7 12 13 14 15 16 22 23

ring nodes :

1 2 3 4 5 8 9 10 11 17 18 19 20 21 24 25 26

chain bonds :

4-7 5-6 10-12 11-13 14-15 15-16 20-23 21-22

ring bonds :

1-2 1-3 1-8 1-9 2-4 3-5 4-5 8-10 9-11 10-11 17-18 17-19 17-24 17-25 18-20 19-21 20-21  
24-26 25-26

exact/norm bonds :

1-2 1-3 1-8 1-9 2-4 3-5 4-5 4-7 5-6 8-10 9-11 10-11 10-12 11-13 14-15 15-16 17-18 17-19  
17-24 17-25 18-20 19-21 20-21 20-23 21-22 24-26 25-26

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS7:CLASS8:Atom 9:Atom 10:Atom 11:Atom 12:CLASS  
13:CLAS14:CLAS15:CLAS16:CLAS17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:CLASS23:CLASS  
24:Atom 25:Atom 26:Atom

fragments assigned reactant role:

containing 1

fragments assigned product role:

containing 17

fragments assigned reactant/reagent role:

containing 14